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MEERUT:

A GAZETTEER,

BEING

VOLUME IV

OF THE

DISTRICT GAZETTEERS OF THE UNITED PROVINCES OF AGRA AND OUDH.

COMPILED AND EDITED BY

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GAZETTEER OF MEERUT.

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CONTENTS.

PREFACE.

THE old Gazetteer of Meerut was compiled by Mr. E. T. Atkinson, I.C.S., with the assistance of Mr. S. H. James, I.C.S., who contributed most of the material. Much of this was taken from the Settlement Report of Mr. W. A. Forbes and Mr. J. S. Porter. In compiling the present volume, it has been found necessary to recast the whole account, and an attempt has been made to arrange it in a more concise form. I am much indebted for their assistance to Mr. R. W. Gillan, I.C.S., the Settlement Officer, who has kindly contributed an account of his assessment; Mr. R. Oakden, I.C.S.; and Mr. A. T. Scott, I.C.S. The early history of the district has been written by Mr. R. Burn, I.C.S., and the rest has been compiled from the old Gazetteer and official records.

NAINI TAL: 1903. — H. R. N.

GAZETTEER OF MEERUT.

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ABBREVIATIONS.

Elliot or E.H.I.—The History of India, as told by its own Historians, by Sir H. M. Elliot.

J.R.A.S.—Journal of the Royal Asiatic Society.

J.A.S.B.—Journal of the Bengal Asiatic Society.

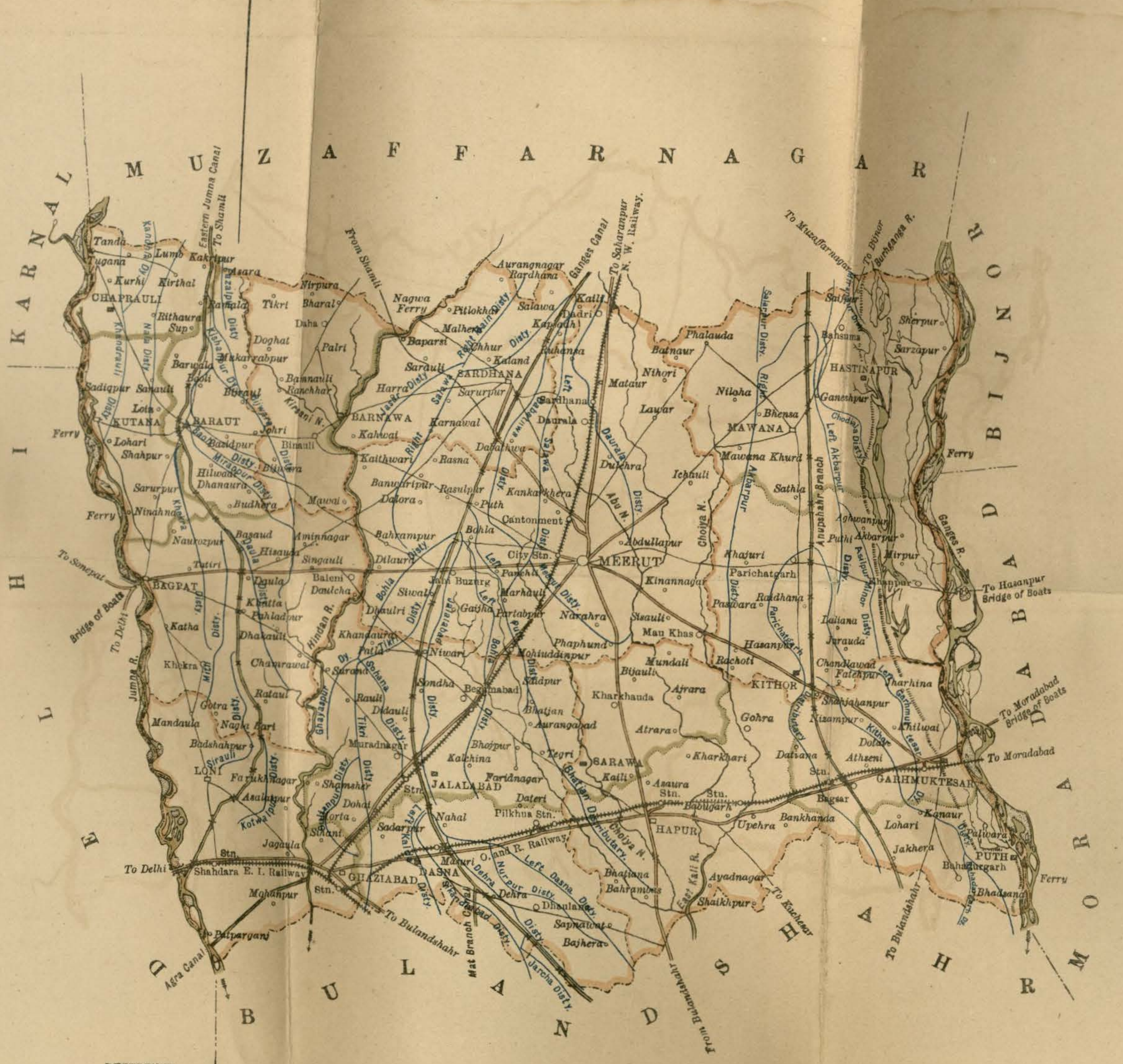
A.S.N.I.—Archæological Survey of Northern India.

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DISTRICT

MEERUT

Scale—1 Inch = 8 Miles.



REFERENCE.

- Chief Town ---------- ○ MEERUT
- Tahsil ---------- ▫ SARDHANA
- Pargana ---------- ▪ DASNA
- Thana or Police Station -- ○ Parichatgarh
- Town or Village ---------- ∘ Kutha
- Metalled Road
- Unmetalled Road
- District Boundary
- Tahsil " "
- Pargana " "
- Railway
- Canal
- Do Distributary

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CHAPTER I.

GENERAL FEATURES.

THE district of Meerut forms part of the division of the same name, and is situated in the tract of country known as the Upper Duáb. It is bounded on the north by the district of Muzaffarnagar and on the south by Bulandshahr, both of which belong to the Meerut division. On the east the boundary throughout is formed by the Ganges, which separates it from the districts of Bijnor and Moradabad of the Rohilkhand division. All along the western boundary flows the Jumna, which divides the United Provinces from the Panjáb and separates the Meerut district from Dehli and Karnal. The district has a total area, according to the figures of 1901, of 2,362 square miles. In shape it is roughly rectangular; its greatest length is 58 miles and the least length 49 miles; the greatest breadth is 48 miles and the smallest breadth 36 miles. On the south there is no natural boundary, nor on the north, except for some nine miles where the Hindan, flowing in a south-westerly direction, separates the Sardhana tahsíl from tahsíl Budhana of Muzaffarnagar. Boundaries and area.

In its general aspect the district presents the appearance of a level alluvial plain without any hills or eminences of any magnitude. The general direction of the drainage is from north to south, and the slope is very gradual throughout. The regularity of the general gradient of the country is well illustrated by the slope of the road from Aligarh to Meerut and Roorkee, which passes through the centre of the district. The top of the fifteenth milestone on the Muzaffarnagar road to the north of Meerut has an elevation of 772·2 feet above the level of the sea. This diminishes to 739·3 feet at the Meerut church, and following the road to Aligarh, the tenth milestone shows an elevation of 720·93 feet; Kharkhauda encamping-ground is 713·51 feet, the eighteenth milestone is 705·3 feet, and the Hápur encamping- Levels.

ground is 692·94 feet. Thus, in a distance of 42 miles from north to south, the total fall is 82·1 feet, and the average gradient of somewhat less than two feet to the mile is very regularly maintained throughout the entire length of the district. The whole of Meerut is, in fact, a well cultivated plain, and there is no uneven ground save in the ravines that are generally found on the edge of the river valleys. The only marked difference of level is that between the central plateau and these river valleys or khádirs as they are called. In the upland tract the only rising ground consists of a few sandbanks in the eastern parganas, a few mounds or *tilas*, such as the Lakha Mandap of pargana Barnawa, and here and there a deserted village site or *khera*.

Topography.

The district may be divided into several distinct tracts, each with well marked physical characteristics of its own. These may be described roughly as the north-western tract, the central depression, the eastern tract and the khádir lands of the Jumna and Ganges. A brief account of each of these will now be given, with a short description of their rivers and drainage systems, beginning from the Jumna on the west and ending with the Ganges on the east.

The north-western tract.

The first of these natural divisions embraces the whole of the Baghpat tahsíl, the greater part of Sardhana, and portions of Meerut and Ghaziabad. It extends from the Jumna on the west across the valley of the Hindan to the water-parting between the latter and the central depression, a line that is roughly marked by the course of the Ganges canal. This tract is the most fertile portion of the entire area of Meerut, and consists of a fine black loamy soil, which renders the parganas within it the richest in the district. This level plateau is only broken by the valleys of the Hindan and its small tributaries. Towards the west it sinks into the khádir of the Jumna, while on the south the good soil of the upland narrows to a point and terminates in the wide expanse of lowlying land or khádir between the Hindan and the Jumna, which stretches on into Dankaur of the Bulandshahr district. Before proceeding to the account of the rivers and their khádirs it will be better to complete the description of the upland plateau by dealing with its minor lines of drainage.

These are for the most part very ill-defined and cannot be described as streams. The drainage system known as the Kirthal carries off the superfluous water from the north of the Jumna-Hindan Duáb and embraces an area of about fifty square miles, of which about seven square miles lie to the east and the remainder to the west of the Eastern Jumna Canal. The general direction is from north to south; it has an average breadth of about 2¾ miles, and its length from the northern boundary to the point of escape into the Jumna valley is about eighteen miles. The limits of the system on the north is the Kandhla minor distributary, which leaves the canal at the 79th mile. On the east it is generally bounded by the canal from the 79th to the 96th mile, but from the 92nd to the 96th mile the watershed lies to the east of the canal; on the west it is bounded by a watershed running between the Kandhla and Nala distributaries, the latter forming its western boundary throughout. The whole of this tract is irrigated more or less from the canal, and the evils arising from over-saturation were felt many years ago. Considerable relief has been afforded by the completion of the Kirthal drain which falls into the Jumna near Lohari, and which really represents a determination of the bed of this line of drainage.

Minor drainage lines in the west.

Further south there is a similar line known as the Alawalpur system, so called from the village of that name situated at the 100th mile of the canal. This also is a tributary of the Jumna, running in a direction generally south-west. It has a catchment area of about 36 square miles, extending from the Kirthal system on the north to the Baraut and Bághpat road, where it passes into the lowland of the Jumna close to the town of Bághpat. This watershed is bounded on the east by a small drainage system discharging into the Hindan, and on the south by a similar line of drainage known as the Deola. This line is not well defined till it crosses the canal, when it becomes a broad and easily-traced valley gradually deepening as it approaches the Jumna. Shortly after crossing the canal at Alawalpur it is joined by a branch of considerable size, which starts from near Barauli to the west of the canal and runs in a southerly course parallel to the canal as far as Alawalpur.

The Alawalpur system.

There are three other minor depressions connected with this system: one to the east of the canal near Alawalpur, which joins the main line at the canal; one to the south-west of the canal from Qayampur; and a third close to Sheikhupur, which joins the Barauli branch. The superfluous waters of these systems are now all carried into the Jumna by regular drainage channels excavated by the Canal Department.

Deola and Khekra systems.

Further south the Deola branch line, referred to above, runs to the east of the canal into the Hindan near the road from Bághpat to Muradnagar. On the west of the canal the original line can be still traced by the villages of Ladwari and Niwara to the Jumna. Another line, known as the Khekra, rises to the south-east of the village of that name in pargana Bághpat and runs past Firozpur and Charauri into the canal at its 122nd mile near Sheikhpura. The canal occupies the lower portion of its original course, and before the excavation of the canal this line used apparently to run above Shahdara into the Jumna.

Jumna river.

This river exercises a large influence on the Baghpat tahsíl and all the land west of the Hindan. It enters this district from Muzaffarnagar and flows in a south and south-westerly course along the western boundary. Close to the south-west corner of the district it receives on its left bank the surplus water of the Eastern Jumna Canal. The bed of the river lies so low that irrigation from it is impracticable, and its water is only used for the cultivation of melons, which grow on its sandy banks in great luxuriance and are much prized for their excellence. The high bank of the stream varies considerably in appearance; in some places it is very well marked, but more commonly the ascent is fairly gradual. Generally speaking, the bank is much higher in the north than in the south, and in the Bághpat tahsíl steep and abrupt cliffs are frequently met with, especially near the sites of the larger towns. In the north the khádir area is very small. The river generally flows close to the high bank, but near Chaprauli takes a slight bend to the west for a few miles, while the same thing occurs in the neighbourhood of Kutana and Bághpat. These three towns are all situated on the top of the high bank and in time of heavy flood the river approaches close to their

outskirts. Consequently the Jumna seldom causes alluvion or diluvion. In May, the melting of the snow within the drainage area of the Jumna in the hills causes a considerable rise in the river; the stream is then very deep and strong, but it does little damage in the north, where the small area of lowland on its banks is actually benefited by the alluvial deposits brought down by the stream. Towards the end of the cold weather, owing to the amount of water that is taken out of the river by the canals, the Jumna is fordable nearly everywhere in this district, and frequently there is only a couple of feet of water in the bed. Further south, however, the absence of the high bank causes no such obstacle to the floods, which frequently overflow and saturate a great portion of pargana Loni, although the river is kept in place to a large extent by the training works of the Agra canal. Lands liable to fluvial action from the river are subject to a temporary settlement under the ordinary rules.

Jumna khádir.

This khádir land is much wider in the south than in the north. The well marked ridge which forms the high bank of the river disappears in the south of Baghpat, or rather bends inward towards the Hindan. Here the uplands terminate in a sandy fringe of ravines and undulating soil, a stretch of useless land in which nothing will grow except an inferior kind of thatching grass. Further south of pargana Loni the khádir sinks into a lowlying tract which contains a number of depressions which are nearly always covered with water to a depth of two or three feet. The sandy strip of inferior soil which crowns the high bank of the Jumna in the south continues northward throughout the course of the river, but is much narrower, as the descent from the upland is sharper in the north, and consequently the fringe of ravines and dry sandy soil is there much less extensive. Mr. Gillan in his Settlement Report divides the southern khádir into two portions, which he distinguishes as the upper and lower khádir. He writes: "The upper khádir is a khádir without water; a khádir that is safe from flooding now by reason of the numerous works that cross and enclose it—the Eastern Jumna Canal; the East Indian Railway, which runs on a high embankment the whole way from the Hindan to the

Jumna bridge; the Hindan cut, which carries the water of the Hindan across to the Jumna to feed the Agra Canal; and the Okhla bund, which runs from the Jumna railway bridge along the bank of the river: but a tract characterized by peculiarly infertile sandy soil, called by the people "*dabkans-ki-zamin*" and altogether of very inferior quality. The lower khádir is khádir proper, subject to floods, but resembling often in soils the upper khádir." There has been no improvement in the upper khádir, although it was considered by Mr. Forbes that an increase of population must involve better cultivation. It appears that the natural infertility of the soil is, in fact, a bar to any distinct improvement. The lower khádir, too, shows a serious decrease in cultivation. The population is only 105 to the square mile; the inhabitants depend more on cattle-rearing or cattle-stealing than on agriculture; cultivation is neglected and irregular, and the rates of rents are no higher now than they were thirty years ago.

Kirsani river.

Between the Jumna and the Hindan there are two small streams which drain the north central portion of the upland tract known as the Kirsani and Banganga. Of these the Kirsani, or Krishni, enters the district near Tikri in pargana Barnawa and after a course of about twelve miles in this district flows into the Hindan just below the town of Barnawa. It is an unimportant stream, having no towns on its banks and being little used for the purpose of irrigation. It flows in a well-marked bed, the banks of which on both sides are broken by numerous ravines, and the land in its neighbourhood is of a sandy inferior quality.

Banganga river.

The Banganga is an altogether insignificant stream, which enters this district from Muzaffarnagar at the village of Dhanaura, and after a course of about eight miles joins the Hindan at Shahpur, two miles north-east of Barnawa. Like the Kirsani, its banks are broken by numerous small ravines, and the river is quite useless except as a drainage channel. It is sometimes dry in the hot weather, but in the rains the depth of water varies from four to five feet. Its bed has an average breadth of some fifty feet.

Hindan river.

The Hindan, which flows through the eastern half of the north-western tract, enters the district from Muzaffarnagar at

the village of Pitlokhar, where it is joined by the Western Kali Nadi. It thence flows in an irregular course through the district as far as the Bulandshahr borders, its general direction being south-south-west. It is joined by the Banganga and Kirsani close to Barnawa, but has no other tributary deserving of mention. The khádir of the river varies in width: at Malahra it extends for a mile on each side of the stream, while at Barnawa it is little more than one-fourth of a mile in breadth. Further south it widens out on the west to join the Jumna khádir in the south of Baghpat, and then the khádirs of the two rivers unite to form the sandy tract already described. On the left bank also the Hindan khádir spreads out in the south and comprises a large part of the Dasna pargana. This tract generally resembles the khádir to the west. During the rains the river is nowhere fordable, but at other times there are numerous fords, some of which are not more than two feet in depth. It is only navigable in the rains, when a few boats ply for the convenience of passengers. The land inundated by the river is occasionally cultivated for the rabi crops, and the harvests are of excellent quality. A short temporary inundation is a cause of fertility, but in times of heavy flood the khádir lands are liable to become saturated and affected by the saline efflorescence known as *reh*, which has not disappeared in spite of the extensive drainage system undertaken by the canal authorities. Of recent years there has in fact been a considerable development of *reh* in the Hindan khádir and large areas of land have not been ploughed for twenty years and more. The waters of the river are used for irrigating the rabi crops and melons, which are grown in the sandy bed of the stream. In the lower portion of its course, just below the railway bridge at Gháziabad, an artificial channel conveys a large portion of the waters of the river into the Jumna, this channel being in reality part of the Agra canal. In this manner the Hindan actually conveys some of the waters of the Ganges into the Jumna: for not only does the tail-fall of the Deoband canal empty its superfluous water into the Hindan near Budhana in Muzaffarnagar, but the Jani escape of the Ganges canal sends a much more considerable volume of Ganges water into the

Hindan. The Jumna, just below the artificial point of junction with the Hindan, is dammed by a weir at Okhla, and thus the waters of the Hindan are carried across the Jumna into the Agra canal. The natural course of the Hindan lies through the khádir lands of Loni and the Dankaur pargana of Bulandshahr; the river is exceedingly tortuous here, its length through the khádir being no less than 30 miles from the bridge at Gháziabad.

East of the Hindan.

East of the Hindan the land is a continuation of the north-western tract as far as the Ganges canal, which runs along the watershed. Along the Hindan, as on the west, there is the usual strip of poor soil, of a sandy nature and cut up by ravines; but further inland it is generally of the same high quality, although it falls off a little to the south, especially in the Jalalabad pargana. Otherwise the soil is extraordinarily rich and uniform, fully irrigated and splendidly cultivated. The country is drained either by natural channels or by the cuts made by the canal authorities. The overflow water of the jhíls at Rasulpur-Rohta, Dulampur and Satwai is carried off by means of the Satwai and Rohta cuts into the Jani escape, and water from the neighbourhood of Nek, Tikri, Bahrampur and Timkia is also admitted into the escape by inlets. Further south the Viwal drainage cut carries the water from the lowlying lands at Kurali, Pastra, Bharapur and Jhalawa into the Hindan and serves an excellent purpose, as it has made this part of the district extremely productive. To the south of the Siwal cut lies a long depression extending from Patla to Ujhera. This has been drained by two cuts leading into the Hindan, with the result that a formerly waterlogged area is now covered with splendid crops. The jhíls at Didauli and Muradnagar and the long wide depression extending from Khurrampur to Bhikanpur are drained by the deep Bhikanpur cut with drains from Khurrampur, Didauli and Ukhlarsi. The two jhíls are hollows which cannot be drained quite dry; the Bhikanpur depression is drained, but the soil is not good and produces little else but thatching grass.

The central depression.

East of the Hindan watershed is a tract that may be termed the central depression, which runs from north to south. The land slopes towards the east as far as the centre of this tract, and

then rises again as far as the road from Muzaffarnagar to Meerut and Bulandshahr, which may be roughly taken as its eastern boundary. It thus includes a part of pargana Sardhana, the centre of Meerut, the east of Jalalabad and the greater portion of Dasna. This curious shallow depression begins in the neighbourhood of Sardhana and runs as far south as the Bulandshahr border. Although it is hardly true to say that there is no outlet for this tract, as it is in fact obviously the source of the Chhoiya and other minor streams which rise to the south of Meerut, its distinguishing feature is the want of drainage. There are several ill-defined depressions along which the canal authorities have in many cases dug drains; but even with these artificial aids the water does not escape very rapidly, and though the soil is generally good, there is a tendency to saturation and damage in unusually wet years. In places, too, there is a decided tendency to the formation of *reh*, which is rare in other parts of the district, except in the khádir lands. The surface in this depression is a level stretch of alluvial soil, and in the south the land is chiefly a rich loam all of which is culturable.

Its drainage. This portion of the district has been the subject of constant attention for the last forty-two years, and the drainage system can now be considered as perfect as it is possible to make it without going below the level of the country—a course which has had to be adopted with the Kadirabad and Dasna drains in the attempt to relieve hollows which were intended by nature to hold water, but in which the constant saturation has been attributed to the proximity of the Ganges canal. In the extreme north two drains carry off the surplus water from Daulatpur and Jawalagarh into the old Abu escape. To the south of this the soil is more sandy and absorbent, so that no artificial channels are required until we reach the neighbourhood of Sardhana, which lies between the canal and Salawa distributary. The drainage of Sardhana always remained a thorn in the side of the Irrigation Department until orders were issued prohibiting irrigation in the vicinity of the town. At the present time the place is surrounded with drains. To the north the Jhitkeri drain and the Kusauli branch carry off the drainage into the canal through an inlet. On the west the Chhabaria-Juledha drain,

with a syphon under the Salawa distributary, carries off the surplus water into the main drain above Nanun. In the town itself there are drains along almost every street, converging into the Sardhana drain which, after flowing through the Nanun depression, turns to the west and passes through the high uplands of the Hindan at an immense depth, eventually falling into the river near Hasanpur. To the south of Sardhana, in the neighbourhood of Dabathua and Khirwa, there are deep depressions which cause constant complaints in times of heavy rainfall. Drainage, however, can only be effected by digging the drains far below spring level, so that it would be more convenient either to fill up the depressions or to move the villages to higher ground. The depression is broken by a stretch of somewhat higher ground between Nanun and Meerut, but further south the land sinks again in a more marked manner. This tract is admirably served by the Kharauli, Sheikhpuri and Kadirabad drains and a small cut which relieves the flooded village of Kanshi in the extreme south of pargana Meerut. The only large depressions are the Sheikhpuri and Bhatjan jhíls, but the drainage is so effective that they are almost all cultivated in the cold weather and large crops of rice are raised on their banks in the rains.

The Ganges canal tract.

The triangular strip of country lying between the canal and the Sheikhpuri and the Kadirabad drains, and extending from Bhola on the north to Nahal on the south and Chandpura in pargana Hápur on the south-east, is covered by a network of distributary channels and drains. To the east lies the Kadirabad drain and its numerous branches; and to the west and south the Hawal drain with the abandoned Chajarsi escape carry off the superfluous water. The tract contains numerous depressions, the chief of which are those at Dhandaula, Ekla, Puthri, Jani Khurd, Niwari, Sikhera, Sikri Khurd, Kalchina, Jalálabad and Shamli; they are now all well drained and except in years of very heavy rainfall are cultivated in the winter, while even in the rains their banks are used for rice. The progress effected in this direction is illustrated by the fact that a quarter of a century ago all these places were magnificent shooting-grounds, whereas at the present time they are perfectly dry in winter,

Dasna.

Further south in the portion of Dasna pargana surrounding Dhanaula there is a rich, well-cultivated, well-irrigated and well-drained tract, through which pass the Kadirabad, Hawal and Baral drains, all leading into the Kali Nadi. The depressions at Lakhan, Tisauli and Karanpur are served by separate cuts into the Hawal drain. The Nahal depression is drained into the canal by an inlet; while the Dhaulana, Parpa, Bajhera and Dahirpur depressions have special cuts leading into the Baral drain. Below the village of Dehra an inlet has been made into the canal for the relief of the lower portion of the Baral drain, thus removing the possibility of flooding villages in Bulandshahr by the drainage from Meerut.

Masuri.

In pargana Dasna, too, there is the great Masuri jhíl, the drainage of which has been the subject of heated correspondence in past years. The jhíl lies considerably below the level of the country and in the attempt to drain it perfectly dry, the Dasna cut was excavated below the spring level. The results have been that the sides have constantly fallen in and the waterway can only be kept open with the greatest difficulty. The Dohai and Sadarpur cuts leading from the depressions of the same names, do their work very effectively, but, as at Bhikanpur, the soil is bad and only thatching grass is grown. The depressions of Kusalia and Kashta are, however, cultivated, sugarcane being grown on them for years continuously. The Dasna drain passes through the high uplands of the Hindan and joins the river below Gháziabad. It is joined by the cuts from Pipalhera and Masuri as well as by a number of small drains from the Dasna estate.

The eastern uplands.

The next tract comprises the eastern uplands, which extend from the central depression to the ravines above the Ganges khádir. It is drained by the Kali Nadi and its affluents, the watershed on the east culminating in the ridge along which flows the Anupshahr canal, beyond which the influence of the Ganges is felt, the land becoming poor and sandy, while water is only found at a great depth. The chief characteristic of the entire tract is the existence of lines of *bhur* or sand, which enter the district from the north and whose presence is so strongly marked in the eastern parganas of Muzaffarnagar. They occur in the

form of rolling dunes or sandhills which continually change their position. These sandhills seem to owe their origin to the admixture of sand in the stratum through which the drainage lines run and to the subsequent action of the wind. The main sandy ridge is one which starts in the Sahāranpur district, and passing close to the city of Meerut, continues southward through the Duáb as far as Etah. These sandhills are not confined to the vicinity of the Ganges, but occur in the direction of the Kali Nadi as well. In between the ridges there are intervening levels of better soil. In some cases these stretches are quite extensive, as in the case of the long line of good soil running through Mawana and right down the line of the Anúpshahr Canal. The soil is never so rich, however, as in the north-western tract described above.

The construction of the Anúpshahr branch of the Ganges canal has greatly improved the eastern portion of this tract. In many places it runs quite close to the ravines of the Ganges and the broken country which separates the uplands from the Ganges khádir. Though, however, there is much good land in the interstices between the sandhills, the tract is not a good one. The eastern portion is damaged by the proximity of the Ganges, while in the west the Sarawa pargana is very poor by reason of the prevalence of sand, and further south in Hápur there is sand on the one side, while the other is cut up by the Kali Nadi and its tributaries.

Kali Nadi.

The chief river of the eastern tract is the Kali Nadi, which rises in the Muzaffarnagar district and flows southwards into Bulandshahr, finally joining the Ganges in Fatehpur. This stream, which should properly be called the Kalindi, is also known as the Nagan, or again as the eastern Kali Nadi, to distinguish it from the western Kali, a tributary of the Hindan. The Kali Nadi has no important towns on its banks. It is crossed by bridges on the roads from Meerut to Mawana, Parichhatgarh and Garhmuktesar, and near Babugarh on the road between Hápur and Garhmuktesar. The stream contains very little water except in the rains and is never navigable. It is joined in its course by three smaller streams which form part of the same central drainage system. Two of these are known under the generic name of Chhoiya. One lies on the left bank and traverses nearly

Its tributaries.

the whole length of the district, rising at a point close to Niloha in pargana Hastinapur; while the other is on the right bank and has its origin in the central depression, a short distance to the south of Meerut. The eastern Chhoiya closely resembles the Kali in character. In the early parts of its course it is an ill-defined straggling watercourse, running through low, ill-cultivated land and, except in the rains, is perfectly dry. In the latter part of its course it carries a sluggish stream through a deep section with a more or less extended valley. It has a total length of about thirty miles and joins the Kali about nine miles below Hápur.

Abu Nala. A third tributary of the Kali Nadi is the channel known as the Abu Nala, which consists of a cut of considerable depth and dimensions, which was dug in 1869 as a canal from the north-west of pargana Sardhana, with the object of bringing water from the Hindan across the Ganges canal to irrigate the Meerut pargana. The attempt failed, for though water is said to have reached Meerut once, it did so on no other occasion. The portion between the Hindan and the Ganges canal at Daulatpur was converted by Colonel Cautley into an escape, but this was afterwards abandoned for the newer Jani escape. Frcm Kapsadh to the east of the Ganges canal the Abu Nala is connected with, and often gives its name to, the line of drainage which runs southwards by Pabli; the old cut was made into a regular drain and still forms one of the two drainage lines for the eastern side of Meerut cantonments. It is joined at Pabli by the Alipur line of drainage, which begins in the series of jhíls to the north-east of Sardhana, and eventually under the name of the Khodara joins the Kali Nadi at Kamalpur. This line was cleared out and improved in its upper branches in 1868, while at the same time the portion running through Meerut was repaired and enlarged.

Improvements in the smaller streams. All these streams, including the Kali Nadi, have been deepened and straightened by the canal authorities, not only to enable them to carry off the water from artificial drainage cuts, but with a view to improving the adjacent lands. The project has been so far successful that the low-lands have greatly benefited, while much land which was waterlogged and useless has

been rendered culturable; but on the other hand the deepening of the river beds has considerably decreased the facilities for irrigation. In a similar fashion the western Chhoiya has been utilized and made to serve as a continuation of an important drain from Jalalabad, and is now known as the Nála.

Drainage.

The extension of the Abu Nala to the Kali Nadi as a drain illustrates a curious feature of the drainage of the country lying to the west of the Kali Nadi. As already mentioned, the country rises from the central depression eastwards in the direction of the metalled road running from north to south through the district; yet the drainage of the central depression, instead of following the natural fall of the country to the south, is always making for the streams through higher land to the east, and the general course of the drainage is south-south-east. Apparently this is due to a subsidence of the central tract subsequent to the definition of the course of the streams. As it is, the drainage channels which join the Kali Nadi from the west begin as shallow *chhoiyas* in lowlying land, but in their lower courses run in deep-cut valleys through the higher ground.

The eastern watershed.

The country forming the watershed on the east of the tract, between the Kali Nadi and the Ganges, includes the Hastinapur and Kithor parganas of tahsíl Mawana and the Garhmuktesar and Puth parganas of Hápur. This tract is divided into two minor watersheds by the Chhoiya. That lying to the east is traversed by the Anupshahr branch of the Ganges canal, but this canal does not define the actual line of drainage, as in many places it has been found necessary to construct syphons under it. Generally the natural drainage into the Ganges east of the canal is as perfect as possible, but in a few cases it has been supplemented by the excavation of artificial drainage channels. In the north-east corner a drain has been made in the khádir to relieve the village of Bamnauli from floods on the Burhganga. To the south-east the country between Baksar and Puth is drained by the Wait and Baksar cuts which lead into the Siyana escape. The only other drains are those near Sháhjahánpur and Buklana, where syphons carry the drainage under the canal into the Nim Nadi, which flows into Bulandshahr district near Birampur.

This eastern tract consists largely of sandhills varied by intervening patches of good arable sandy clay. The drainage is nowhere a difficult matter, as the soil is absorbent, but to the west of the canal a number of drains have been made leading into the eastern Chhoiya in order to relieve local depressions. In pargana Mawana the Ikla drain starts at the village of Bhainsa; lower down it is joined by a cut from Mawana, and further on by the Bali drain, which starting at the Gaunri jhíl takes up the drainage of Bali and Ramnagar. This Ikla drain joins the Chhoiya near Muradgainpur. The Chhoiya itself forms a most efficient drainage line. It originates in two natural channels which carry off the drainage of Niloha and Bisaula and unite into a single stream near Mawana Khurd. The narrow strip of the country between the Chhoiya Nála and the eastern Kali is well drained by three small streams and needs no artificial channels. The Chhoiya drains.

To the west of the Kali Nadi, in the north of this tract, the country is drained by the Chandsani and Khatauli drains from the Muzaffarnagar district, which flow into the Kali Nadi. The minor watershed between the Kali Nadi and the Abu Nala is crossed by a number of sandhills to the north of Meerut, but is well drained by the Abu Nála and its branches, to the east are the Kapsadh, Kaili and Udepur cuts and on the west the Bahadurpur, Pahuli and Fazilpur drains. The cantonment of Meerut is well drained by the two lines of the Abu Nála, except when the Kali Nadi is in high flood, on which occasions the water is held up until the stream resumes its normal level. The northern portion.

The easternmost tract is the well-known low khádir land of the Ganges valley. It is bounded on the west by the high cliff under which for three-fourths of its length flows the Burhganga, an old bed of the Ganges which is connected with the main stream by numerous watercourses. Many parts of the khádir are, no doubt, capable of cultivation, but it is chiefly covered with grass jungle full of pig and other wild animals, while it also suffers from the apathy of the landlords and the inferior quality of the cultivators. In its general aspect it closely resembles the khádir of Muzaffarnagar; it is a tract with many wandering depressions, but fairly raised on the whole, with soils that are poor and light, Ganges khádir.

instead of being heavy and lowlying, and not exposed to any particular danger either of flood or of waterlogging. In the north the Ganges lies about seven miles from the ravines, but the distance between them gradually diminishes, and south of Garhmuktesar the khádir is very narrow. In the southern portion the level appears to be lower than in the north, and sinks gradually till in Puth and Garhmuktesar we find heavy swampy land that is only suitable for rice and cane.

Deterioration of the khádir.

At the same time it cannot be doubted that the khádir has of late years suffered much from the general deterioration that has overtaken all lowlying tracts. In Puth and Garhmuktesar at the time of the preceding settlement the khádir was the richest and most highly assessed portion of the parganas. At the recent settlement by Mr. Gillan cultivation had almost disappeared and the revenues were paid solely from the profits on upland cultivation. The decrease appears to be due solely to waterlogging, which is ascribed either, as in Muzaffarnagar, to the canal or else merely to wet seasons. The lowest point was reached in 1895, after the removal of the population on account of the scare caused by the Gohna landslip. In the northern portion also the khádir seems to have suffered, although the story is by no means new. Sir Henry Elliot wrote that the grass in the khádir could be cut by any one on condition of their giving half to the zamindar; but the "experiment was a hazardous one as the ground was infested with elephants and tigers." Mr. Porter, on the other hand, states that before the mutiny many of the villages had been large and flourishing, but that deterioration had set in before he began his assessment. At all events there had been no improvement up to Mr. Gillan's time, except possibly in Kithor. The recent settlement took place after the cycle of wet years ending in 1895, and the khádir was probably then at its worst. There has been some improvement in the khádir since, and at the quinquennial settlement of the Puth and Garhmuktesar parganas in 1902, cultivation was found to have recovered somewhat, as there were hundreds of acres under excellent rabi crops. On the other hand there is very little hope of any permanent improvement in the khádir. Something has been achieved by the

construction of drainage works; but the soil is poor and quickly exhausted, so that it is doubtful whether it would repay the cost of extensive drainage schemes and systematic cultivation. Some Játs from the uplands, who have recently purchased the village of Inayatpur in pargana Garhmuktesar, are trying to improve the style of cultivation, and it will be interesting to note the results of their efforts.

The Burhganga, which forms so marked a feature of the khádir, is a sluggish, irregular stream, which in many places rather resembles a chain of swamps than a river. It enters the district from Muzaffarnagar at the village of Firozpur and flows southwards into pargana Garhmuktesar, when it joins the Ganges. Its distance from the high bank which separates the khádir from the uplands ranges from a few yards to a quarter of a mile. Its depth varies considerably in the hot weather when it is quite dry in places, but it always holds water in some of its larger swamps, which are generally marshy, reed-covered jhíls, with patches of open water. Opposite Hastinapur, a series of jhíls form with the Burhganga a large island after the rains. The general tradition that this stream represents an old bed of the Ganges is borne out by the fact that Timur in his Memoirs states that he encamped at Firozpur on the banks of the Ganges. This place from the distances given corresponds with the village of that name mentioned above. The stream itself is of no use, but rushes for making matting and reeds for wickerwork chairs are cut from the swamps along its course. Burhganga river.

The Ganges enters the district from the east of Muzaffarnagar and flows at first in a southerly and afterwards in a south-south-easterly direction, separating Meerut from Bijnor and Moradabad. The banks of the river are generally slightly defined on the one side and abrupt on the other, according to the position of the main stream. The channel is fairly stable, but in some places the banks suffer slowly from erosion. There has been considerable diluvion in the southern parts of pargana Puth within recent years, and the area of cultivated land in the khádir is constantly changing. Formerly, the action of the Ganges in time of flood must have been considerable, for a very ancient tradition records the destruction by the river Ganges river.

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of the old city of Hastinapur. The Ganges is not now used to any great extent for navigation, owing in large measure to the suspension of through traffic caused by the construction of the Narora dam in the Bulandshahr district. It is at all times navigable for vessels not exceeding one hundred maunds burthen in this district, but a considerable amount of the river-borne traffic has been transferred to the canal. Another cause of the decrease in river communication is the construction of the various railways. The river is in no case used for irrigation, owing to the distance of the stream from the banks. The velocity of the stream varies at different periods of the year. In July and August boats descend at the rate of 45 miles in a day of 24 hours, and in September and October from 15 to 20 miles; but in the winter months they make no more than eight or nine miles. Garhmuktesar is the only town of any size on the Ganges. A large annual fair is held there on the river bank, about a mile from the town, in the month of Kartik at the time of the full moon. The Ganges is crossed by the railway bridge a mile from Garhmuktesar on the Gháziabad-Moradabad branch of the Oudh and Rohilkhand Railway. There are several ferries over the river which will be mentioned later.

Jhíls and swamps. In the foregoing account mention has been already made of the principal jhíls and depressions, and of the alteration in their aspect that has frequently taken place by reason of the drainage works undertaken. There are no jhíls of any importance in the north and west of the district, and this remark especially applies to the parganas of Chaprauli, Kutana, Baraut and Bághpat. The chief remaining jhíls are in the khádirs of the Ganges and Jumna. There are several such depressions in pargana Loni, the chief being those at Gházipur, Kotla, Makanpur and Gharaunda-Nimka. The jhíls in pargana Meerut are those at Kharauli, Pathanpura, Rampur, Pawarti and Sodhapur. The Kharauli jhíl, which has been alreadly mentioned, is the largest; but this as well as the others is nearly dry in the cold weather. The chief jhíls in pargana Jalalabad are those at Bhikanpur, Sarwa, Khakra, Khurrampur, Jeori, Basantpur and Pasunda. Those which have not been already drained are of no great size or importance. In pargana Dasna there are several

jhíls, known locally as *dahars* and *sotis*. The former may be defined as a low-lying tract of waste land subject to annual inundation, the surface of which has a glossy appearance and is usually covered with small red pebbles. Under this head come the Karanpur, Parpa, Sapnawat, Bajhera and Kapurpur jhíls. The chief *sotis*, which are ill-defined natural drainage lines, are those of Mattiala, Sakrauda, Kusalia and Rasulpur. The large reservoirs at Dhaulana and Masuri are generally known by the ordinary name of jhíl.

Flooding. The only parts of the district which are liable to flood are the Ganges khádir in the Mawana and Hápur tahsíls and the villages in the low-lying tracts of pargana Loni and the south of Bághpat near the Jumna. These areas are affected directly by the great rivers and consequently little can be done to prevent the occurrence of floods. In pargana Loni an embankment has been constructed to keep off the surplus water of the Jumna and the work has been on the whole successful, although the sandy character of the soil in the neighbourhood presents a constant difficulty. In the central portion of the district there was at one time considerable danger of flooding owing to the natural lines of drainage being impeded by canal works. Such floods are now of rare occurrence owing to the existence of the complete system of drainage works, by which the canal authorities have secured an easy outlet for surplus water. Much, too, has been done in this direction by the realignment of faulty distributary channels.

Waste land. In so highly developed a district it is only natural that one should find a comparatively small proportion of waste, and barren land. There is practically no jungle in the district, the only exceptions being of few patches of dhák trees which occur here and there. The district has none of those *úsar* plains which form so marked a feature of the southern Duáb, and the comparative absence of the saline efflorescence known as *reh* is marked. The only tracts that are said to be affected by it in any material degree are the lowlying lands of the Hindan and the Ganges river bed near Hastinapur, and in these cases the saline matter undoubtedly owes its origin to constant saturation. Scattered areas of *reh* are also to be found

in the parganas of Dasna and Jalalabad, and are popularly ascribed, and possibly with some reason, to saturation caused by the canal. The deterioration of the Ganges khádir has already been described. The Settlement Officer attributed this to the heavy rainfall of the seasons preceding the year of record, although he imagines that canal irrigation by raising the water-level must have had some effect. Strength is added to the latter theory by the fact that there has been no marked improvement in the khádir since the settlement, although the subsequent period has been characterized by a series of unusually dry seasons. Very little has been done towards the reclamation of the *reh* land, and it remains a matter of speculation whether it is possible.

Present extent.

The statement of barren land in this district, including village sites, at the time of the settlement under Regulation IX of 1833 shows that there were 234,453 acres, or nearly 15 per cent. of the total area, barren. At Mr. Forbes' settlement of 1860 the barren area had fallen to 190,019 acres, showing a decrease of 43,435 acres. This was due in great measure to the fact that in the former settlement many tracts were entered as *úsar* or barren which were in reality fallow. In the Loni pargana, for instance, owing to the pressure of labour on the culturable area the barren area had fallen from 21,469 acres to 13,410 acres. In Bághpat the barren area had been reduced by one-half, and similarly throughout every pargana the land returned as barren was considerably diminished. At the last settlement there was a further, though smaller, decrease, amounting to about 14,000 acres, and in 1902 the total barren area for the whole district, including the wide stretches of deteriorated land in the khádir, amounted to 177,249 acres or less than 12 per cent. of the total area of the district. Of this only 68,773 acres consist of actually barren land, the remainder being divided in almost equal proportion between land covered with water and that occupied by village sites, roads, buildings and the like.

Pasture.

A large amount of the actually barren land, small as is its extent, is of considerable value as providing pasture and grazing-ground. In the upland portion of the district there is

practically no grazing-ground except in the immediate vicinity of Meerut, where there is a regular Government grass farm belonging to cantonments; and in fact the cattle of the uplands are chiefly fed from young crops grown for fodder in cultivated land. The only extensive grazing-grounds of the district are those in the khádir of the Ganges and Jumna as well as a small area along the Hindan. The largest stretches of pasture are those in the parganas of Kithor and Hastinapur, where the khádir is very wide and the grazing land in some parts extends up to the Burhganga some five miles inland. The value of this pasture-ground, however, is diminished by the fact that the grass which grows most luxuriantly is that known as *panni*, a coarse species which is injurious to cattle. Grazing, too, is impossible during the rains. Formerly there were large areas of pasture in pargana Puth, but these have been diminished during the last ten or fifteen years by a change in the course of the Ganges. Generally, no fees are paid by the zamindars of the neighbouring villages, but when in times of scarcity of fodder cattle are brought down from Meerut, Hápur and distant villages, a rate of six annas per acre is levied, and the few Chamars and Ghosis who make grazing their principal occupation receive two annas a month for each cow or ox, and four annas a month for each buffalo. The grazing-grounds on the Jumna in the parganas of Chaprauli and Loni have somewhat increased of late years, but they are not so extensive as along the Ganges.

Although the district possesses so little natural jungle, **Groves.** it is fairly well provided with groves. The eastern portion is well wooded, while in the west parts of Gháziabad and Hápur and the whole of Bághpat are thickly sprinkled with mango groves. Along the canals, too, there are lines of fine shisham and other trees which have been planted by the department. The total grove area of the district in 1902 was 13,421 acres, or little less than one per cent. At the settlement of 1860 the recorded grove area was only 2,453 acres, but then a large proportion of grove land was classed as uncultur-able waste. It is difficult, however, to ascertain whether there has been any advance in this direction, but there is certainly

still much room for improvement, especially in the poorer tracts where groves still often flourish when a crop is barely possible. In this connection we may quote the words of Mr. Gillan:*—

"Mr. Forbes was rather severe on the indolence of the Sherpur Pathans, who preferred the planting of groves to cultivation; but when I find that they have now a *bagh* letting for Rs. 400 in sandy soil which would be worth at most Rs. 100 for cultivation, I think they deserve not blame, but commendation. That a grove in the long run is most remunerative cannot be doubted, but it requires a good deal of capital and is slow in giving a return; and these are facts which, with the smallness of the area held by most co-sharers and the difficulty of united action in bhaiyachára communities, prevent the extension of groves even in parts where they would be advantageous. In numerous petty properties it is impossible for Government to interfere; but in the Ganges ravines I think there is scope for a large and profitable scheme. The feasibility of a 'fuel and fodder' reserve in such situations has been proved in other districts, and with proper management it could not fail to be profitable here, both to the promoters and to the agricultural and non-agricultural population of Meerut."

Trees. The commonest tree to be found in these groves is the mango, but the district possesses a fair reputation for many other varieties of fruit trees. Those most frequently found are the *bel* and the guava. Of the latter there are three varieties: the common pale yellow, the *guldbi* or pink, and the *safed* or pear guava. Citrons of all kinds are largely grown, and especially oranges. The other common fruit trees of the district are the lokwat, peach, apple, pomegranate, pummelow, and several varieties of plums. The arboricultural operations carried on by the Public Works Department and the District Board will be referred to under the head of communications in the following chapter.

Minerals. The mineral products of the district are neither numerous nor important. In former days salt was largely obtained in this district from the extensive salt tracts of Gháziabad,

* Settlement Report, p. 4.

portions of which lie in pargana Loni and the remainder in the Bulandshahr district. This salt tract is situated in the low-lying khádir lands of the Jumna and stretches along the banks of the river from beyond the town of Loni into pargana Dadri of Bulandshahr. Since 1833 the manufacture of salt has been entirely suppressed, but previous to that year many thousand maunds of salt used to be turned out annually. A little saltpetre is manufactured in the Meerut district, but the outturn is small. Saltpetre works are to be found in a few villages of Bághpat, Hápur and Mawana tahsíls, but no extensive business is done. Previous to 1867 a saltpetre refinery was in work at Hápur, but since that year it has been closed owing to the depressed condition of the trade. The impure carbonate of soda, commonly called *reh*, is found in small quantities in the khádir lands and elsewhere as mentioned above. It has some small mineral value, being used in the manufacture of country glass and is collected and employed in washing by *dhobis*.

Kankar.

The only other mineral product deserving of mention is kankar. There are kankar pits in many villages in each tahsíl. Both the large block kankar used so extensively in canal works, and called *chatan*, and the small nodular kankar used for roads and known as *bichhwa* are found. The most extensive block kankar pits are those of Nandpur and Narainpur in the Gháziabad tahsíl. Nodular kankar is found in all parts, but especially in the south as, for example, in the neighbourhood of Gháziabad and in the Garhmuktesar and Hápur parganas. The price of kankar at the pits varies from Rs. 3 to Rs. 4 per hundred cubic feet, and the rate of cartage varies considerably according to the distance and the season. Lime is manufactured from kankar at various places in every tahsíl, kilns being found at almost every quarry. The present price of kankar lime varies from Rs. 15 to Rs. 20 per hundred maunds.

Building materials.

There is no stone in the district except such as is brought from Dehli and Agra. Bricks are manufactured at several places and are made in three sizes, the cost varying from Rs. 125 to Rs. 800 per lakh. The district does not contain sufficient timber to meet building requirements. The sál tree does

not occur here, and large quantities are imported from Hardwár by the Ganges Canal. The commonest timber tree grown in the district is shisham; the average price varies from Re. 1-8-0 to Rs. 2 per cubic foot. Other woods used in building are the jamun, ním, and mango, all of which are grown here. The usual price of jamun is Re. 1-8-0 per cubic foot. The wood lasts for about twenty years and then becomes afflicted with a dry rot. The price of ním and mango is about ten annas a cubic foot. The wood of the dhák tree, which is fairly common, is also much used in building. The babul or kikar is largely employed for making agricultural implements, while its bark is very valuable as a tanning medium. The wood of the gular, a species of fig, has the peculiar characteristic of being unaffected by water, and it is consequently used largely for the foundation frames of wells.

Fauna. The principal wild animals occurring in the Meerut district are the leopard, antelope, hog-deer, nilgai, fox, pig, wolf, jackal, porcupine, hare and monkey. Tigers, which were once numerous in the Ganges khádir, have now practically disappeared. One was shot about ten miles north of Garhmuktesar in 1895. Hyænas, too, are occasionally met with. Leopards are fairly common in the khádir of the Ganges and in the ravines that fringe the edge of the uplands. Antelope are common in most parts of the district, but they are continually persecuted and good heads are rare. Wild pig abound in the Ganges khádir and are met with elsewhere. The district has long been famous for its pig-sticking, and the well-known Khádir Cup meeting, which takes place annually in March or April, attracts votaries of that sport from all parts. Wolves are somewhat common in the ravines of the Ganges and are also found along the Kali Nadi and in other places. Rewards are paid for the destruction of dangerous animals as in other districts. For leopards, Rs. 5 are given; for male wolves Rs. 2 and Rs. 3 for females; male cubs, eight annas and female cubs, two annas; for hyænas, Rs. 2. The average amount paid in rewards for the three years ending 1901 was Rs. 541. The list included seven leopards and cubs, two hyænas and 631 wolves of all descriptions.

The average number of deaths caused by wild animals for the same period was about six annually. Most of these were due to the attack of wolves and jackals on small children.

Snakes. Snakes do far more damage. The average recorded mortality from snake-bite is 34. The snakes of this district are of the ordinary kinds met with everywhere. Mr. Atkinson recorded a very large number of species from a note supplied by Mr. H. M. Rogers, I.C.S. In this it was stated that according to the popular classification there were no less than 34 different kinds of snakes to be found in the district; but if this is so, some of them must be very rare. At all events, the native descriptions of these snakes are of little practical use.

Birds. The birds of the district are very numerous. Game-birds are plentiful in the Ganges khádir and in the ravines bordering on the uplands. Wild duck and teal are found in numbers along the Burhganga, and in places along the Hindan and Jumna as well as in the larger jhíls in the interior. Snipe also are common in many places. Geese are to be met with on the great rivers. Black partridge are common in the Hápur and Mawana tahsíls, and especially in the Ganges khádir. Grey partridge, quail and blue-rock pigeons are to be found everywhere, but the green pigeon is scarce. Sand-grouse are very plentiful in certain seasons, occurring chiefly in the khádirs of Mawana, Hápur and Gháziabad. Florican are also to be seen occasionally in the Ganges khádir.

Among the other birds, mention may be made of the following, although the list is by no means exhaustive: Barbets of several kinds, and especially the crimson-breasted barbet or coppersmith; the sunbird; the Indian roller or *nilkant*, commonly known as the blue jay; several kinds of kingfisher; the hornbill, hoopoo, swift, nightjar, hawk-cuckoo or brain-fever bird, koil, crow-pheasant, parrots, owls and owlets of several descriptions; vultures, kites, shrikes, the black drongo or king-crow, peafowl, tree-pies, minas, orioles, tailor-birds, crows, doves, weaver-birds, fly-catchers, blue-throats, robins, swallows, ouzels, babblers, bulbuls, and several kinds of chats, larks and wagtails. Among the water-birds we may record the sáras, coot, moorhen, courser, the Indian darter or snake-

bird, cormorants, stilts, terns, spoonbills, adjutants, the little grebe, black ibis, herons, and several varieties of storks and egrets. There is no trade, however, in the skins of wild birds or animals.

Fish. The fisheries of the district deserve mention, though they are of no great importance. Fish of all descriptions are to be found in the rivers and canals. The same varieties occur in the Ganges canal as in the Ganges river, and, except the larger species, the Eastern Jumna canal contains nearly the same kinds of fish as the Jumna river. They are mostly caught by the lower castes of Musalmans, Kahars, Kolis and Khatiks. There are about 220 fishermen and fish-dealers in the whole district, most of whom live in the neighbourhood of Meerut, where they find a ready market. There are four common modes of catching fish: by the net, the rod, the *tápa* or bottomless basket, and by forming dams. Large quantities of fish are caught at all seasons of the year except during the rains, when they are said to be impure and are little sought after. Fish are largely consumed by most classes, except Brahmans, Banias and Jains. The price varies according to kind and quality, ranging from about four annas to one anna per *sér*, although the more highly prized species, such as *anwari*, fetch as much as eight annas a *sér*.

Cattle. The domestic animals of the district are of more importance. There is no particular breed of cattle, but several zamindars have from time to time imported good bulls from Hissár, which has resulted in a great improvement of recent years. There are now large numbers of excellent animals, and especially bullocks in the district. The best of them come from Hissár, but many good animals are bred locally. The price of domestic animals of all sorts has largely increased of late years, the rise since 1875 being about 75 per cent. The price of a plough-bullock ranges from Rs. 25 to Rs. 125 or even more; while bullocks for carriage purposes fetch from Rs. 80 to Rs. 200. Buffaloes vary in price from Rs. 30 to Rs. 100. The price of cows differs according to the quality and lies anywhere between Rs. 15 and Rs. 50.

Horses. Horse-breeding has become a very important business in this district. The establishment of the Government stud at

Babugarh has for many years given encouragement to the zamindars, who have largely turned their attention to horse-breeding. There has been a considerable improvement during the last thirty years, and many zamindars now breed excellent animals which are bought as chargers for the native cavalry and for the mounted police. Further encouragement has been given to the breeding of good animals by the institution of the annual horse show at Meerut in connection with the Nauchandi fair, and by the similar shows at Bulandshahr, Muzaffarnagar and Aligarh. The price has risen proportionately. Animals bred from good stock fetch from Rs. 200 to Rs. 750, and occasionally even higher prices are obtained. Besides the stallions at the Babugarh stud, Arab and English sires are kept at different places in the district by Government and, till recently, by the District Board. The latter supported twelve stallions for breeding purposes till the operations were taken over by the imperial authorities in 1903.

Mules and donkeys.

Mule-breeding has also been much encouraged by Government and is on the increase. A good stamp of mule is now bred here and is used for transport purposes. Most of these are bred from Government donkey stallions, for the donkeys of the country are for the most part of a wretched description. The Kumhars alone breed donkeys, and these are almost invariably diminutive and deformed animals. One of the causes of this deformity is that they are worked when too young, and another is the practice of tying their legs together to prevent them from straying. In addition to this, they are overworked and underfed. Their price varies from Rs. 10 to Rs. 30.

Sheep and goats.

The sheep and goats of the district call for no special remark. There is no good breed here and no efforts have as yet been directed towards their improvement. They are reared and tended by Gadariyas. The price of sheep varies from Rs. 2 to Rs. 6 according to size and quality; and that of goats from Rs. 2-8 to Rs. 10.

Cattle census.

A census of all the cattle and stock available for agricultural purposes was taken in August, 1899. It was then ascertained that the district had 252,866 bulls and bullocks to

105,700 ploughs and 36,324 carts—a somewhat low proportion. The number of male buffaloes was 4,366, which is surprisingly small, but not peculiar to this district, as there are very few both in Muzaffarnagar and Saharanpur. In addition to the above, there were 129,620 cows, 124,827 cow-buffaloes and 293,826 young stock. A second census was made in 1904. The number of bulls and bullocks had risen to 253,586, while ploughs had increased by 3,060. Cows numbered 132,387 and cow-buffaloes 128,518. Besides these, there were 3,708 male buffaloes and 307,642 young stock. These figures stand in a comparatively high proportion to other districts, and it must be remembered that not only does Meerut contain a very large area of grazing-ground, but that it also is an important centre of the ghí trade. The large number of young stock is a proof that breeding is carried on extensively in this district, but as the areas in which breeding is carried on are small in proportion to the total area, the large proportion of cows and cow-buffaloes is not at first evident. Horses and ponies at the last census numbered 20,499—a figure which is not surpassed by any other district. Mules and donkeys, too, numbering 25,447 in all, are more numerous than in any other district of the United Provinces. Sheep totalled 82,718 and goats 104,040, which is a high proportion; but, as has been already mentioned, neither are very important.

Cattle disease. Cattle disease does not appear to be very prevalent in the district, but the returns are no more complete here than elsewhere. The available figures, indeed, tell us very little. In the returns for the ten years ending 1902 the entries for no less than six years are blank; this is manifestly incorrect in a district which possesses so large a number of cattle. There is always difficulty in ascertaining the true state of cattle disease, owing to the reticence of the people on this subject. There is a veterinary hospital at headquarters in the charge of an Assistant Veterinary Surgeon who is paid by the District Board, and a second Assistant Surgeon is employed by the Board for visiting different places in the district. From the meagre statistics available it appears that rinderpest is the most common disease, but it occurs spasmodically. There was a severe outbreak in 1899, when 1,142 cattle were reported as seized and

554 died. In the following year the epidemic seems to have abated in severity, the seizures being only 90 and the deaths 65. In 1901 no cases were reported. There was another small outbreak in 1897. Next comes foot-and-mouth disease, which occurred with great severity in 1899 and 1901, and to a minor degree in 1897 and 1900. In 1899, which seems to have been a very bad year for cattle both in this district and elsewhere, there were 981 cases and 289 deaths. In 1901, however, out of 777 cases only six were reported as fatal. Anthrax fortunately is not common. In 1899 an outbreak occurred, in which 50 animals were seized and all of them died. A few deaths from pleuro-pneumonia and other causes were reported in 1899, and in fact it appears that for this year alone the figures in any way approach correctness.

The comparative vicinity of the mountains and the high altitude combine to render the district one of the healthiest parts of the plains of India. The weather for five months, from November to March, is delightfully cool and invigorating. The prevailing winds are westerly and northerly. In January a light hoar frost is frequently found in the early morning, and at one time ice used to be collected and stored by laying out shallow earthen pans which on cold nights became covered with thin coatings of ice, but now-a-days the manufactured article, which is both better and cheaper, is almost universally used. In April the hot westerly winds commence: at first they begin in the afternoon and cease at sunset, but later on they begin in the morning and frequently continue during the greater part of the night. They generally cease in June. They make the atmosphere sultry, but are not at all injurious to health; many persons, in fact, who suffer severely from rheumatism and remittent fever, enjoy better health during the hot weather than at any other period of the year. Towards the end of June the winds become variable and the weather close and cloudy, with occasional showers in the intervals, between which it is extremely oppressive, hot and damp. When the regular rains set in it continues fairly cool till the end of September; during this month it is cloudy, with little wind, and occasionally extremely hot and exhausting: this is the most unhealthy season

of the year. In October, though the days are very hot, the nights gradually become cool and pleasant. The annual mean temperature of Meerut, where there is a Government meteorological station, is about 76·75 degrees. January is the coldest month with a mean temperature of about 57 degrees; and May and June the hottest, with a mean of about 90·5 degrees. The range of temperature, however, is much greater in May than in June. It is greatest in March and April, and again in October and November. The temperature in the shade does not often exceed 100 degrees except in May and June, although later on it depends largely on the nature of the rainfall.

Rainfall. The district is practically the meeting place of the Bombay and Bengal monsoon currents. The latter falling off in strength as it works westward, and the Bombay current being apt, when it is weak or diverted by cyclonic storms in the Central Provinces, to reach no further than Jaipur, the monsoon rainfall of the district is light and often uncertain. If the mean annual rainfall be mapped, the inferior limit of the belt in which the mean is 30 to 40 inches runs not far from, but slightly nearer, the hills than the line of the Ganges. The 20 to 30 inches boundary lies to the west of the Jumna. The district is, therefore, on the boundaries of these two belts, which are about 150 miles broad in the south and east, but in the neighbourhood of Meerut they are only some thirty miles broad. The east of the district gets more rain than the west. The lightest rainfall is in the south-west, and here at the same time it is most intermittent. The parganas of Loni and Bághpat frequently receive barely half the rainfall of Mawana in the Ganges valley. The district depends almost wholly on the monsoon, but rain sometimes falls in considerable quantities in the latter part of December and the early part of January, and in unirrigated land is the saving of the spring crop. Cyclonic storms occur from time to time towards the end of the hot weather, strong gales coming on suddenly from the north-west and frequently terminating in rain, but the fall is generally of little material consequence, save as cooling the atmosphere.

Rainfall data. Available records show the total rainfall for the whole district from 1844; but a break occurs between 1853 and 1861,

chiefly owing to the disturbances caused by the mutiny. The average annual rainfall from 1844 to 1901 inclusive is 88·08 inches. This is subject to constant variations. For the five years ending 1895 the average was no less than 46·75 inches, while from 1867 to 1875 the average fall was only 25·06 inches. During the latter period there were two years of abnormally small rainfall, for in 1868 the total was only 17·3 inches and 17·8 inches in 1869. In the famine year of 1860 the average for the whole division was but 12·2 inches, so that this is probably the lowest fall ever recorded. In 1896, a year of great scacity elsewhere, the average fall for the district was 20·19 inches. The figures for the past thirty years show an average of 25·15 inches between the 1st of June and the 1st of November; 2·3 inches from November to the end of February and 1·51 inch from the 1st of March to the beginning of June. Rain-gauge stations are maintained at each of the tahsíl headquarters. The returns for the past six years amply illustrate the statement made above as to the general distribution of the rainfall. Mawana heads the list with 24·76 inches, followed closely by Sardhana and Meerut, while Hápur has 22·29 inches. Bághpat gives an average of 18·65 inches, while Gháziabad comes last, with only 16·69 inches. The fall in pargana Loni is probably even less.

A very fair idea of the general health of the district can be obtained from the statistics given in the appendix.* They are useful as a general guide, and at least provide us with a proportionate statement of diseases. The figures are remarkable as showing the comparative immunity of the district from all epidemics save malarial fever. Meerut itself is considered one of the healthiest stations in India, and the climate is found to be favourable to many of the diseases induced by residence in other parts. Europeans do not often suffer from a first attack of malarial fever, though returns of this disease occur during the latter part of the rains. Fever in Meerut is particularly common amongst the grasscutters, whose occupation exposes them to unhealthy alluvial exhalations. The commonest diseases amongst the European troops are dysentery, typhoid, and hepatic disease, Health.

* Appendix, Tables III and IV.

with a strong tendency to abscesses. The direct rays of the sun are very powerful from the beginning of March to the end of November, and to this is attributed the prevalence of diseases of an inflammatory nature. September and October are undoubtedly unhealthy months; in the latter the changes of temperature are considerable, and are much felt by those whose constitutions have been debilitated by the previous hot and rainy seasons.

Fever. During the ten years ending in 1902, of the total number of deaths recorded, no less than 95 per cent. were ascribed to fever. As in all other districts of the Duáb in which there has been a large extension of canal irrigation and a consequent rise in the water-level, the increased mortality from this disease during the past 50 years has long been notorious. It led directly, in conjunction with the deterioration of low-lying tracts, to the inauguration of very extensive systems of artificial drainage; but it still remains to be seen whether any permanent improvement in this direction is to be thus secured. Fever is responsible for over 42,000 deaths annually in this district, and this has been largely exceeded on several occasions since the completion of the drainage systems. The death-rate appears to be somewhat lower in dry years, but not to any marked extent. The lowest mortality recently recorded was in 1893, a year of very heavy rainfall. The worst feature of the situation is that the disease appears to be endemic. At first, as in Bulandshahr, it appeared in violent epidemic form, but at the present time the death-rate is almost constant. The inaccuracy of old records constitutes a great difficulty in tracing the history of the disease and in attributing it to its proper causes. The number of reported deaths from fever in 1868, a year of drought, was only 8,425, but then the total recorded mortality was only 11·89 per mille, which must be far below the mark. In 1872, after the introduction of an improved system of record, the fever mortality had risen to 38,209, with a total death-rate of 35·53. This was no doubt exceptional, but from 1871 onwards the rate was never less than 24, while at the present time it is close upon 30 per mille for the whole district. Although, roughly speaking, the greatest mortality from fever occurs along the lines of canal

yet it is higher in the towns than in the country. The only established facts are that there have been simultaneously an enormous development in the canal-irrigated area, a considerable rise in the water-level and a terribly enhanced death-rate from malarious fever. To some minds the conclusion is obvious.

Other diseases.

Cholera always claims a few victims yearly, but severe epidemics are rare. Since 1891 the average mortality under this head has been somewhat less than 550 annually, but for six of these years the average is only 30. There was a bad outbreak in 1891, when 924 persons died, while in the following year the death roll rose to 3,553. Other but less violent epidemics occurred in 1896, 1899 and 1900. In 1867 one of the worst known outbreaks occurred. Cholera was brought down by the pilgrims from Hardwár in the middle of April. The disease was prevalent throughout April, May and June, but abated till the end of August, when it attacked the Buffs, then stationed at Meerut, in the most virulent form, almost every case in the regiment proving fatal. They lost over 130 men in two months, the percentage of fatal cases in cantonments being 92·8. The recorded mortality from cholera for that year was 4,073, but this is probably a very moderate estimate. Small-pox is now comparatively rare. The average mortality since 1891 has been 39 annually, but only 7·2 if we exclude 1896 and 1897, when there were slight epidemics. Formerly its ravages were terrible. In 1869 there were 4,984 deaths recorded from this cause, while the average for the eight years ending 1874 was as much as 1,822 annually. The decrease can only be ascribed to the spread of vaccination.

CHAPTER II.

AGRICULTURE AND COMMERCE.

CULTIVATION has reached a very high standard in Meerut, as in all the districts of the Duáb. The district has always been very highly developed, and the large proportion of cultivation to the total area has ever been a noticeable feature since the advent of British rule. Cultivation received a great impetus from the rapid extension of canal irrigation, and since the completion of the main lines of canals there has been but little further extension—a fact which tends to prove that cultivation has already reached a point approximating to its furthest possible limit. Already a large amount of land has been brought under the plough which was formerly considered unculturable. Wide areas in the immediate neighbourhood of jhíls and depressions are now regularly cultivated, although, of course, such land is liable to saturation in years of exceptionally heavy rainfall. This observation was brought into prominence at the last settlement, when there was actually an apparent decrease in the cultivated area as compared with that of thirty years previously. It was ascribed by the Settlement Officer to the series of wet seasons immediately preceding the year of record, and this view has been borne out by the subsequent further increase to a point never before exceeded, which must be attributed to the succession of abnormally dry seasons beginning in 1896. Cultivation.

At the time of Sir H. M. Elliot's settlement in 1836, the total cultivated area of the district was 855,879 acres or somewhat less than 57 per cent. of the whole. When Mr. Forbes undertook the settlement in 1860 the area had increased to 1,043,515 acres or 69 per cent. During the intervening period there had been a very great development of canal irrigation and agriculture had received a great impetus from the rise in prices and the growth of the population. In Sir Henry Elliot's Development of cultivation.

time the Ganges canal did not exist, nor did the Anupshahr branch or their numerous distributaries. Consequently we find the greatest increase of cultivation in those tracts which were brought within reach of a certain supply of water for the purposes of irrigation. Thus the increase was greatest in the parganas of Kithor, Hastinapur, Sarawa, Meerut, Sardhana and Dasna, and least in the Bághpat tahsíl, which already enjoyed the benefits of the Eastern Jumna Canal. At the same time there was a very large increase in pargana Bághpat, owing to improved economic conditions and better relations between the zamindars and cultivators. It is probable, too, that in 1836 the full benefits of the Eastern Jumna Canal had not been felt, and this supposition is strengthened by the enormous subsequent increase in irrigation in the neighbouring parganas.

Present condition.

At the last settlement of 1895 it was observed that though the cultivated area, as shown by the average of the last five years, was 1,066,763 acres for the whole district, or over 70 per cent. in the year of record, there was an actual decrease below the figures of 1860. This decrease amounted to 22,559 acres, but of this 8,042 acres were in the khádir. The falling off in the khádir appears to be permanent. In Mr. Forbes' day the khádir was in a state of unprecedented prosperity, but since his settlement the deterioration has gone steadily on. In the rest of the district the decline appears to have been due to temporary causes, as stated above. Since the settlement all signs of deterioration have vanished, for in 1902 the total cultivated area amounted to no less than 1,093,576 acres or over 72 per cent. of the whole area—a figure that is hardly exceeded in any other district of the United Provinces.

Culturable waste.

The area recorded as culturable waste includes groves, old and new fallow and land which is presumably capable of cultivation. The grove land has already been dealt with in the preceding chapter. For the rest the classification is always liable to be somewhat misleading. Generally, the culturable area is greatly exaggerated, for in the uplands at any rate there is very little waste that is really fit for cultivation and which would repay the labour and expense incurred in bringing it under the plough. In the old records the classification

is so confused that it is almost impossible to attempt a comparison with the present time. Waste was a term that was almost unknown, the areas that we should now distinguish by that name being added in with old fallow, and any separation is now impossible. Sir H. M. Elliot gave a total of 318,319 acres or 20 per cent. as culturable. At Mr. Forbes' settlement this was reduced to 192,907 acres, of which as much as 165,323 acres were classed as old fallow. In 1902 the culturable area, excluding groves, was 226,634 acres or 15 per cent. of the whole area. This is considerably in excess of the amount recorded as culturable by both Mr. Forbes and Mr. Gillan, although there has been a similar increase in the cultivation. The only conclusion is that much of waste land is now classed as culturable which bears out the remark made above with reference to its quality.

In the popular names for the various classes of soil the district follows both Bulandshahr and Muzaffarnagar. The Bulandshahr names, which are universal in the south, and, as a matter of fact, common throughout the district are as follows. The fields immediately surrounding the village site are known as "*bara*," a term which corresponds to the "*goind*" of other parts. This *bara* is most marked in the south and especially in the tracts irrigated from wells. It almost disappears in the rich general farming of the Játs in the north. Loam is generally known as "*seota*," but the meaning of the term varies. It is applied to loam of every sort, and includes what is called elsewhere "*matiar*" and also "*rausli*" or sandy loam. In the settlement these terms acquired an almost conventional meaning. *Matiar* was used for the best loam, whereas its general connotation is heavy clay. *Rausli* was used for second-grade loam, while in Muzaffarnagar the term embraced all loam and was subdivided into two classes. The heavy clay found in depressions is here generally called "*dakar*," and this was also used in the settlement as distinct from *matiar*, though elsewhere they have the same meaning. In the north of the district *rausli* stands for loam generally, as in Muzaffarnagar. Sandy soil is universally known as "*bhur*." The term is applied only to culturable sand, the res

Soils.

being known as "*ret.*" All these names are in general use, and, in spite of the apparent confusion, the distinctions are almost always recognised by the people. It must be remembered that in the settlement the sole object of soil classification was valuation, and it was adjusted only for the application of rates. It was therefore impossible that each soil should mean exactly the same everywhere. Each village was treated as a separate problem, and the system adopted was that in each village each class of soil should contain all the land to which one rate should be applied.

Improvements. The rapid development of the district during the past half century has been attended with considerable improvements in the nature of certain soils. Large tracts formerly occupied by dhák jungle have been brought under the plough at a comparatively small expense, and by the application of manure have been rendered highly productive; but it must be remembered that dhák never flourishes in a really bad soil. Elsewhere reclamation has been of a very different nature. Mr. Michel, the late owner of the Dasna Estate, attempted with considerable success the improvement of several tracts of sandy bog, known as *daldal*, and also of land impregnated with *reh*. This could only be effected by extensive and deep drainage works in the first case, while in the other he began by ploughing up the land and working in the ashes of large quantities of burnt vegetable matter with the addition of silt brought down by the canals. A few more ploughings and the application of more vegetable manure made the land productive. The drawback to this system is the great cost involved. It is said by some zamindars that *reh*-affected land can be cured by shutting off the water-supply and allowing the soil to remain dry for a few years. *Reh* is undoubtedly caused by waterlogging, but the difficulty is to prevent land which has once been thoroughly dried from becoming again saturated when the canal water is reintroduced, unless the evil was originally caused by excessive irrigation, and not by the general influence of the canal on the water-level.

Harvests. The general system of cultivation in this district presents no peculiar features. There are the usual harvests known by

the usual names. The kharíf generally covers a greater area than that sown in the rabi, except in the Gháziabad tahsíl and occasionally in Bághpat, as will be seen from the figures given in the appendix.* The proportion varies with the season, but the preponderance of the kharíf over the rabi harvest was also observed by Mr. Forbes in 1860. In the report of the last settlement the crop statement shows a large balance in favour of the rabi, not only for the year of record, but also for the five preceding years, the average proportions being 64 per cent. in the case of the spring harvest and 57 per cent. for the kharíf. This, however, appears to be exceptional, for the period for which the figures are given was one of unusually wet years. The subsequent dry seasons seem to have restored things to their normal state. The double-cropped area is large and has shown an enormous increase during the past forty years. Mr. Forbes returned it at 46,000 acres or only 4·5 per cent. of the cultivation. For the five years preceding the last settlement the average area was 232,000 acres or nearly 22 per cent. In 1902 the proportion was very much the same.† The increase is almost universally ascribed to the development of canal irrigation, which everywhere exerts a powerful influence on the double-cropped area.

The standard of cultivation is generally so high that little improvement is to be expected in the way of rotation of crops or otherwise. Generally, if the land be irrigated, one-third of a cultivator's holding is allowed by him to lie fallow for one harvest in the year; but if the land is solely dependent on the rainfall, only one crop is annually produced. Starting with an irrigated plot and with wheat as the first crop, the kharíf crop will be maize or bajra, with gram in the ensuing winter. Then will come cotton, and in the following harvest the land will lie fallow. Then sugarcane, which takes up the best part of the year, followed by a light kharíf crop grown as fodder. This is merely an example: the general rule is that land must lie fallow for at least one harvest in three years where there is ample irrigation, while in dry land the period of lying fallow

Rotation of crops.

* Appendix, Table VI. | † Appendix, Table V.

recurs more frequently. There is one peculiarity regarding the treatment of fallows in this part of the Duáb that deserves mention. For half the fallow season the land remains as it was after harvest, and then the land is ploughed usually in two ploughings. Experiments in the rotation of crops and manure are carried on at the Demonstration Farm near Meerut. In connection with this there is a sewage farm which has shown the value of the city drainage water which now brings in a considerable income to the Municipal Board. The agricultural implements of the district are the same as those in use in Muzaffarnagar.

Sugarcane. Beginning with the kharíf staples, we find the most important crop to be sugarcane, which by universal consent is that from which the tenant pays his rent and the zamindar his revenue. The cultivation of this crop has shown an extraordinary increase during the past century. In 1807 Mr. Guthrie, the Collector of Sahâranpur, which then included Meerut, Muzaffarnagar and a part of Bulandshahr as well as the present district of that name, wrote: "It is estimated that 22,000 *bíghas* are under sugarcane cultivation; thus this cultivation is already considerable, and that it is not increased to a far greater extent is solely owing to the indigence of the cultivators; nor does the cane which is now produced yield all the advantage of which it is capable, being for the most part made into *gur* and exported to Jaipur and other trans-Jumna States; very little indeed is refined and manufactured into sugar." Besides, the cane which was then most generally grown is now considered the most inferior of all the sorts cultivated in the district. At Mr. Forbes' settlement the area under cane had increased to 73,643 acres or over 7 per cent. of the cultivation. At the time of Mr. Gillan's revision it had risen to 9·97 per cent., and since that date there has been a still further increase, the area in 1902 being 115,411 acres or over 11 per cent., and in the following year even more. Its extension is chiefly due to the canals, for canal water exercises a peculiarly beneficent influence on this crop. A certain amount of cane is grown in the unirrigated lands of the Ganges khádir, as was noticed even by Sir H. M. Elliot, but it is of a poor quality. It is cultivated everywhere, but

there are some remarkable local variations. In Hápur, for example, it is commonly considered that cane will not flourish, and in Dasna but little cane is grown, although the soil seems admirably suited for it. By far the largest area under cane is in the Bághpat tahsíl, where it has been long established, but there has been a rapid spread of its cultivation in the eastern parganas. Next to Bághpat come Meerut and Mawana. Then Gháziabad, and lastly Sardhana and Hápur.

Sugarcane requires very careful cultivation. It involves a large number of ploughings and much manure. It is sown from Phagun to the end of Chait, and is cut in Pus and Magh. There are several ceremonies connected with its cultivation which are deserving of notice. The first of all consists in observing the direction of the wind at the time of sowing. This is ascertained either by dropping dust from an eminence or by elevating a rag on a bamboo rod. Until the wind is seen to be favourable the cane is not planted. Another ceremony is connected with the first ploughing, which requires the attendance of Brahmans. When the cane is planted the plough becomes an object of devotion and receives offerings of turmeric and rice. The first cane is cut at the Diwali and a red thread is tied round the bundle; after the ceremony the cane is distributed, and the occasion is made to serve as the pretext for a feast. Other ceremonies are connected with the pressing and boiling of the juice, but these have been modified since the disappearance of the old stone and timber press, and the universal introduction of the iron mill. These are generally hired from persons who keep large stocks of them by several cultivators jointly. At one time experiments were made with a view to setting up crushing mills at the falls on the canal; but nothing further has been done in this direction, although the scheme promised to be successful. Cultivation of sugar-cane.

Next to sugarcane in importance comes maize. This crop is usually sown in Asarh and reaped in Kuar, and is grown in loam or clay soil. The average produce per acre is 12 maunds, and the value Rs. 30. It requires several ploughings and is usually irrigated, the cost of production ranging from Rs. 12 to Rs. 15 per acre. In 1860 this crop covered 46,680 acres or only Maize.

four per cent. of the total cultivation. Since then it has rapidly grown in favour. The average cultivation for the five years preceding the last settlement was 82,500 acres or nearly eight per cent., and in 1902 it covered as much as 129,500 acres or over 11 per cent. of the whole cultivated area. It is chiefly grown in the Gháziabad, Bághpat and Hápur tahsíls, but there are large and increasing areas under maize in all parts of the district.

Juar and bajra. Of all the kharíf crops, juar covers the largest area. In 1860 this crop alone and in combination covered over 17 per cent. of the cultivation, and the same proportion was observed for the five years preceding the last settlement. In 1309 Fasli the total area was 184,800 acres or somewhat less than 17 per cent. of the whole, while in 1310 Fasli it had increased to 192,000 acres. It is grown largely in all parts, but especially in the Bághpat, Gháziabad and Hápur tahsíls. It is sown in Asarh and grown in all sorts of land, but is generally found in a better soil than bajra, the other large millet which grows well in sandy *bhur*, where other crops fail or give an indifferent outturn. The acreage under bajra has fallen off of late years, and this in itself is a sign of improved cultivation. It is chiefly grown in the sandy tracts of the east and in inferior loam. The area at the last settlement was but 16,000 acres, which is little more than a third of that sown in 1860. A large amount of juar is grown in this district for fodder, under the name of *chari*. The green stalks are cut when about half their normal height. When grown for this purpose, juar is sown rather early and more closely, sometimes in the beginning of Baisakh. The produce varies from eight to twelve maunds per acre and the value from Rs. 20 to Rs. 30; while the cost of production is about Rs. 7. Bajra, on the other hand, involves an expenditure of five or six rupees; the average outturn is about ten maunds and the value about Rs. 20.

Cotton. Cotton is a valuable kharíf crop and is grown everywhere, although the area sown fluctuates with the state of the market. In 1860 it covered as much as 89,900 acres or 8·7 per cent. of the cultivation. For the five years preceding the last settlement the average area was 58,200 acres, but in the year of

verification it was less than 11,000 acres. There can be no doubt that cotton has to a large extent been permanently supplanted by cane, but its great decline at the time of settlement was due to depression in the cotton industry. Since the settlement there has been a great advance in the cotton area every year. In 1309 Fasli it had risen to 66,800 acres or over 6 per cent. of the cultivation, and in the following year there was a further increase of 9,000 acres. It requires good land and manure and is a rather delicate crop, being easily affected by frost. The cost of production is about Rs. 13 per acre, and the outturn, which averages seven maunds, is worth from Rs. 30 to Rs. 35. It is chiefly grown in the Gházíabad, Hápur and Bághpat tahsíls, where sugarcane occupies a somewhat secondary position. After the cotton is plucked the stalks are cut off and the best are used for basket-making; the rest for roofing, matting to protect earthen wells and fuel. The pods are plucked by women who, if hired, usually get one-eighth share for their work.

Indigo was at one time a crop of considerable importance in this district, but, as everywhere in the Duáb, it has of late years declined almost to extinction. In 1860 it covered 2,700 acres, and at the time of settlement had risen to over 15,000 acres; but its best days were then over. In spite of a small subsequent recovery, it has again fallen off largely, and its total disappearance seems only a matter of time. The manufacture is of old standing in the district, but it languished soon after the British occupation. In 1836 Sir H. M. Elliot stated that owing to the failure of the agency houses and the abandonment of the few factories in Puth and Siyana it was seldom cultivated. Not long after the Skinners established the Dehra factory, and many other small factories were built up to 1863 in the Bághpat, Gházíabad and Hápur tahsíls. Most of these have now fallen into disuse. Mr. Michel's factory at Masuri near Dasna is said to be the largest in India. The trade was carried on at a loss for several years and has now been given up by Mr. Jackson, the present owner, and its place has been taken by sugar. In 1863 the outturn was estimated at over 500 maunds, worth more than a lakh of rupees annually. Indigo.

Rice. Rice is still grown largely in the lowlying portions of the district, but its cultivation has been affected by the numerous drainage works which have dried up many of the jhíls on whose banks it was grown. In 1860 it covered 17,000 acres, and for the five years preceding the last settlement, a period of unusually heavy rainfall, the area was nearly 35,000 acres annually. More is grown in the Gháziabad and Bághpat tahsíls than elewhere, but its cultivation is comparatively insignificant. In the Ganges khádir rice of the variety known as *munji* was at one time largely grown and commanded a good price, especially in the southern parganas, but of late years it has suffered from the general deterioration of the tract. The outturn of both ordinary rice and *munji* is about 15 maunds per acre. The cost of production is Rs. 8 for rice and Rs. 10 for *munji*, and the value of the crop Rs. 30 and Rs. 35 respectively.

Other kharíf crops. The other kharíf crops are of minor importance. Those grown in this district include urd, moth, mung, a few small millets and oilseeds. They cover a considerable area, amounting to about ten per cent. of the total cultivation. Urd is one of the most valuable crops: it is sown in light soil in Asarh and is ripe by the end of Kuar. The cost of production is about Rs. 5 per acre; the yield 10 maunds, and the value about Rs. 20. Moth is grown in *bhur* land and requires no irrigation, as it is easily affected by much moisture. It is frequently sown together with urd. The cost of production is the same, but the outturn is only one-half of that of urd and the value about Rs. 15. Mung is very similar to urd. Of the oilseeds the commonest is til (*sesamum indicum*). It is sown at the end of Kuar and is ripe about the beginning of Baisakh. It is usually grown as a fence round crops of juar. The average produce is five maunds per acre, the value being about Rs. 20 and the cost Rs. 6.

Wheat. In the rabi harvest wheat comes first and the rest nowhere. It is grown in all sorts of land, and is either sown alone or mixed with barley or gram, but the great bulk of the wheat in this district is grown alone. In 1860 no less than 270,000 acres or over 26 per cent. of the cultivated area were under

wheat alone, and over 70,000 acres under wheat mixed with other crops. For the five years preceding the last settlement the average area of pure wheat was 276,200 acres, and of wheat in combination 160,000 acres. Since the settlement the areas have largely increased. In 1309 Fasli the area under wheat alone was 327,500 acres, or 30 per cent. of the total cultivation, while no less than 100,900 acres were under wheat and gram, and 20,750 acres under wheat mixed with barley. The increase under pure wheat is a good sign, being chiefly due to the development of the export trade. The largest areas are in the Bághpat, Gháziabad, Meerut and Mawana tahsíls. Wheat is mixed with gram chiefly in Bághpat, Gháziabad and Sardhana and with barley in Mawana and Hápur, these tahsíls having a larger proportion of poor sandy soil. The cost of wheat production, as of all rabi crops, varies with the season and the locality. The average is estimated at Rs. 30. Wheat requires seven ploughings and generally several waterings. In the khádir irrigation is never necessary, and consequently production is much cheaper. In many other places, too, wheat is grown without irrigation, but in such cases the crops are generally poor, unless the winter rains are sufficient. A large area is sown with wheat on the chance of rain, and the experiment pays if a good crop is obtained once in every three or four years. The best crops, however, are found in fields which can be regularly watered from wells and canals. The average outturn is estimated at 15 maunds per acre and the value at Rs. 45. Wheat alone is almost always sown after a fallow, while a mixed crop, at least in good irrigated land, is a sure sign of doublecropping.

Next to wheat come gram and peas. Peas are usually irrigated, while gram is chiefly a dry crop, the cost of production being Rs. 20 and Rs. 11 per acre respectively. The outturn of gram is on an average 12 maunds and the value Rs. 30; that of peas is 15 maunds and the value Rs. 25. Masur is also grown together with gram and peas, but not to any great extent. The area varies considerably from year to year. In 1860 the amount of land sown with gram, peas and masur alone was 100,700 acres, or less than ten per cent. of the cultivation. For the five years preceding the settlement the average was 162,000

Gram and peas.

acres or over 15 per cent., but in the year of verification it was only 12 per cent. In 1309 Fasli it only covered 96,500 acres, but in the following year the figure was 147,500 acres. The largest areas are in the Meerut, Bághpat and Gháziabad tahsíls, but these crops are grown largely everywhere. The variation is greatest in Meerut and Bághpat.

Barley. In the case of barley, too, it is very difficult to give accurate figures. There is no doubt that barley has decreased in favour of wheat, but it will always continue to be grown in the poorer lands where the soil is sandy and irrigation deficient. The area in 1860 for barley alone and in combination was 58,800 acres, whereas in 1902 only 40,500 acres were under this crop, although a considerable additional amount was mixed with wheat. Barley is not a profitable crop. The average cost of production is Rs. 21 per acre, and the value of the outturn of 16 maunds is only Rs. 25. The crop is sown rather later than wheat and reaped a little earlier. The grain is mostly eaten by the poorer classes.

Arhar. Arhar is properly a kharíf crop, but it is not harvested till the spring. No figures as to the average area are available, but it is very largely grown in this district, being mostly sown with other kharíf crops and left standing after the autumn harvest. The average cost of production is about Rs. 5 per acre; the yield 10 maunds and the value Rs. 20. It is sown in Asarh and reaped in Jeth, thus remaining about eleven months in the field.

Other rabi crops. There are about 5,000 acres annually under tobacco and garden crops. The former is mainly grown in the rich "bara" land adjoining the larger towns and villages. The cost of production, which is estimated at Rs. 60 per acre, is generally much increased by the high rent paid for the land which is often as much as Rs. 40. The average cost, as in other cases, does not include rent. The outturn is about 25 maunds, and the value Rs. 130. The young plants are usually reared in a sort of nursery till they become strong and are then transplanted; when half grown the upper leaves are torn off, in order to cause the sap to settle in the lower leaves, which thus become large and thick. The garden crops call for no special mention. Large quantities of

vegetables are raised in the district, such, as potatoes, turnips, onions and carrots. Potatoes were quite unknown in 1809, and are consequently of solely British origin. Lucerne is also a recent introduction. It is now to be found in most parts of the district, and specially where the zamindars have taken to horse-breeding. It is also used as fodder for cattle. The dye known as *kusum* or safflower was at one time extensively grown here, but it has now almost disappeared, its place having been taken by aniline dyes from Europe. Linseed, so common in other parts of the provinces, finds little favour in Meerut; it is only grown in the Bághpat tahsíl. Castor-oil plants are seldom seen, and no oil is extracted from them in this district.

Zaid crops. The zaid harvest is of little importance. In 1860 it only occupied 167 acres, but the area had increased to over 3,000 acres at the last settlement. Melons are the principal crop, both the musk-melon and the water-melon being largely grown on the banks of the Jumna, and to a less extent in the beds of the Hindan and Ganges. They are sown in Phagun and Chait, and are ripe during the hottest part of the summer. They find a ready sale both in Meerut and Dehli, and possess a considerable reputation.

Irrigation. Meerut possesses abundant means of irrigation, and to this fact is mainly due the agricultural prosperity of the district. The great bulk of the irrigation is effected from the canals which have brought about a complete revolution in the condition of the tract. Mr. Guthrie, the Collector of the district in 1807, represented that irrigation was then very scanty, and that from the beginning of Aurangzeb's reign cultivation was more and more backward. Since the introduction of British rule no less than three main lines of canals have been driven through the district, and this has resulted not only in an extensive replacement of wells, but also in a very largely-increased irrigated area. At Sir Henry Elliot's assessment in 1836 the irrigated area amounted to 232,869 acres or only 27 per cent. of the cultivation. At Mr. Forbes' settlement of 1860, the irrigated area had increased by nearly 150 per cent., the amount being 580,005 acres. These figures must be received with caution; yet the fact of the increase cannot be doubted. In Sir Henry Elliot's time the

Ganges canal had not been even surveyed and the full benefits of the Eastern Jumna Canal had not yet been felt. Thus we find that in 1860 the increase of irrigation during the preceding 25 years has been greatest in those parganas which lay along the Eastern Jumna Canal; but at the same time there had been a very striking increase throughout the whole district. At the last settlement the recorded irrigated area was 607,647 acres or very nearly 60 per cent. of the cultivation. Of this, 379,190 acres or over 60 per cent. were irrigated from the canals, 38 per cent. from wells, and rather more than one per cent. from other sources. It was observed that there has been a large transfer from wells to canals, the latter showing an increase of 98,500 acres and the former a decrease of 65,500 acres.

Its benefits.

The statistics of irrigation naturally vary very largely from year to year according to the seasons; but these figures are sufficiently typical to illustrate the great increase of irrigation. The development of the canal system is now so complete that a very small portion of the district is insufficiently watered. The cliffs above the rivers and the tract of undulating sand above the Ganges are of necessity scantily irrigated, and as the soil in these tracts is of the poorest description, cultivation is very precarious. Such tracts, however, are few and small. The extension of the canal system has caused an enormous improvement in agriculture, one of the most important effects being the improved facilities for growing the more valuable staples. The areas under cane and maize always increase when canal water is introduced without showing any signs of the soil being overworked. Moreover, the canals have rendered the district practically secure from all effects of droughts, and in dry years they are greatly superior to wells. The canal ensures a steadiness in the outturn, which is perhaps the principal cause of the prosperity of the district. It only remains to add that the estimated increase of revenue due to the extension of canal irrigation at the time of the last settlement amounted to nearly Rs. 83,000.

Capabilities of canal irrigation.

The culturable area at present estimated, as commanded by the canals in this district, is 871,674 acres; but this, of course, could not be irrigated in a single year. The area estimated

as annually irrigable is 454,000 acres, of which 158,000 acres are within reach of the Eastern Jumna canal and 329,000 acres come within range of the Ganges canal and Anupshahr branch. Irrigation from all these canals is more required in the rabi than in the kharíf harvest. In 1902 the figures were 265,973 and 151,581 acres respectively, the disproportion being less in the case of the Eastern Jumna canal than of the others.

Water-rates.

The rates in force in this district are the same as those which are imposed throughout the Ganges, Eastern Jumna and Agra canals. For flush irrigation of rice and sugarcane the rate is Rs. 6-10-8 per acre annually and Rs. 3-5-4 per acre for irrigation by lift. The rate for rice includes all waterings given up to the cutting of the crop, and the succeeding rabi crop is exempted from any additional charges, unless it is watered separately after the cutting of the rice when the usual rabi water-rate is levied. For other kharíf crops the charge is Rs. 2 and Re. 1-8-0 per acre annually for irrigation by flow and lift respectively. For indigo, cotton and all rabi crops the rates are Rs. 3 and Re. 1-8; while for tobacco, vegetables, orchards and gardens it is Rs. 4 for flow and Rs. 2 for lift.

Eastern Jumna canal.

The Eastern Jumna canal is the oldest in the district. It was originally constructed during the Mughal dynasty, probably during the reign of Muhammad Shah, but the works appear to have been abandoned in the reign of Ahmad Shah. They were partly restored in later years by the Rohilla chief, Najíb-ud-daula or by his son, Zabita Khan, who died in 1784. Owing to its faulty alignment, however, it is clear that no great quantity of water could ever have been allowed to run for any lengthy period. In fact, although traces of excavation were found by Colonel Cautley in the Meerut district, it may be doubted whether the canal water ever reached so distant a point. There is no doubt, however, that the remains of the old channel suggested the construction of the canal by the British Government. The excavation of the present canal was commenced in 1822 by Captain Robert Smith, R.E. and completed in January, 1830. Several alterations were made subsequently

in the bed of the canal in order to reduce the slope; but these were chiefly confined to the upper section near the hills, and to the portion between Balpur and Bhainswal in Muzaffarnagar. The latter was realigned between 1852 and 1856 by Colonel Morton, who also constructed several falls in addition to those made from time to time by Colonel Cautley. The new channel had not been opened long before it was discovered that the design was still faulty. The velocity was too great and caused erosion of the banks and bed, so that in 1871 the levels were readjusted and an increase made in the sectional area of the channel. Since that date there has been very little alteration in the Meerut portion of the canal, the chief work being the construction of a new tail escape which was found necessary owing to the damage done by the old escape to the training works above the Okhla weir.

Distributaries.

The canal enters the Meerut district at the 83rd mile and falls into the Jumna opposite Dehli, after a course of 46 miles through the parganas of Chaprauli, Baraut, Bághpat and Loni. The canal gives off a large number of distributaries, of which the more important are shown in the map. In the north to the west of the canal are the Khandrauli and Kandhla distributaries which unite near Chaprauli and fall into the Jumna below Kutana. These with the Nala, which terminates into the Alawalpur drain, irrigate the Chaprauli and Kutana parganas, watering an average area of 36,300 acres. Further south are the Khekra, Mitli and Sirauli distributaries, which irrigate about 28,000 acres in Baraut, Baghpat and Loni. To the east of the canal there is in the north an important series of distributaries comprising the Fazalpur, Bijwara, Kishanpur, Baoli and Miranpur distributaries, which tail off into the Hindan. They irrigate parts of Chaprauli, Baraut, Barnawa and Baghpat. The only others of any importance are the Daula, which waters the east of Baghpat and also falls into the Hindan, and the Kotwalpur, which irrigates the east of Loni and terminates in the khádir.

Works on the canal.

At its entry into the district the canal flows at a height of 770 feet above the sea, its total fall being 114 feet. There are falls at Miranpur, Adrispur, Chopra, Shakarpura, where

there is also a mill, Sikhrauri, Jauli and Gokalpur. There are many bridges on the canal. In pargana Baraut at Kakripur, Ramala, Baral, Baoli, Rustampur, Baraut, Barauli, Palhera, Adrispur and Alawalpur; in Kutana at Sadullapur; in Bághpat at Kaimpur, Bishpuri, Chopra Basaund, Daula, Pahladpur, Khatta, Mehrpur, Saidpur, Baragaon and Mubárakpur; and in Loni at Rataul, Binahpur, Sarauli, Meola, Shakarpura, Sikhrauri, Jauli, Banthala, Behta, Gokalpur, Babarpur, Ghaunda and Silampur. There are inspection-houses at Ramala, Baraut, Daula, Sarauli and Silampur on the main canal; at Tugana and Hilalpur in pargana Chaprauli on the Khandrauli distributary; at Fazalpur in Barnawa on the Bijwara distributary; and at Firozpur in Bághpat on the Mitli distributary.

Distribution of water.

When the canal was first opened irrigation was carried on directly from the main channel, supply to the village water-courses being given through openings in the banks. This system involved great waste, while at the same time irrigation was confined to those villages lying close to the main canal. It soon became evident that it would be necessary to make separate channels to command and irrigate the country lying between the minor drainage lines. These channels were constructed by Colonel Cautley at the cost of the zamindars, but the system led to complications in the accounts and many other inconveniences, the chief of which was the difficulty of ensuring a fair distribution of the water. In 1871 the distributaries had to be completely remodelled, attention being paid to the conformation of the country rather than to the convenience of the landowners. Further improvements have lately been carried out, owing to the increasing difficulty of enforcing temporary closures of irrigation outlets and the desirability of reducing the number of prosecutions for breach of the closure rules. In order to distribute the water more evenly the number of outlets have been largely reduced and the remaining ones are closed and opened periodically at fixed times. The irrigation till recently effected by means of long and wasteful watercourses is now taken up by minor distributaries constructed and maintained by Government. One of the chief evils of the old system was that it put too much power into the hands of the

canal patrols, who obtained control over a very valuable commodity.

Ganges canal.

The main Ganges canal supplies the country between the Hindan and the Kali Nadi. It was first regularly opened in 1855, but owing to imperfect development of the distributing channels it is probable that only a very small volume of water was passed down it till the famine year of 1861. It was then discovered that the construction was faulty, the slope being too great, which resulted in serious erosion of the bed and sides of the channel. Consequently in 1865 the work of remodelling was undertaken by the introduction of additional falls in order to decrease the slope and by raising the height of those already in existence. The work was practically completed in 1888, but several improvements have subsequently been carried out, the completion report being issued in 1894. Great improvements, too, have been made in the irrigation and drainage systems during recent years.

Alignment.

For the greater part of its length in this district the canal belongs to the Meerut division, but some ten miles of the southern portion lie in the Bulandshahr canal division. The canal enters the district from Muzaffarnagar at the 66th mile and after passing through the parganas of Sardhana, Meerut, Jalalabad and Dasna, enters Bulandshahr at mile 114 after a course of 48 miles. It enters the Sardhana pargana into a south-westerly direction, but inclines to the south near the town of Sardhana, thereby avoiding contact with a line of sandhills which curve round the northern side of the town. Thence it runs along the course of the central watershed in a series of curves. Its course lies about half way between Meerut and the Hindan river, but further south it approaches more closely to the Hindan on account of the intervention of the Chhoiya Nala at Jani Khurd, where an escape leads into the Hindan, the distance from the canal to the river is only five miles. The western extremity of the curve is in pargana Jalalabad, and from a point opposite Begamabad railway station the canal bends to the south-east and continues in this direction as far as the Bulandshahr border. The height of the channel at Salawa in the north is 763 feet above the sea and at Nidhauli in the south 680 feet. The slope

is therefore 1·75 feet to the mile, but this is reduced somewhat by falls at Salawa, Bhola and Dasna. For the purposes of navigation there are locks on the canal at these places and also at Dehra in pargana Dasna, where are the headworks of the Mát branch canal.

Distributaries.

The Ganges canal gives off a large number of distributaries, the most important of which are shown in the map. On the right bank the largest of these, beginning from the north, include the right main distributary, and its branch the Jasar, which waters pargana Sardhana and tails off into the Hindan, irrigating about 8,700 acres. Next to this is the right Salawa, which waters nearly 15,000 acres in Sardhana and Meerut; the right Bhola, and its continuation, the Ghayaspur; supplying some 18,000 acres in Meerut and Jalalabad and the large Tikri distributary, watering 16,800 acres in Meerut, Jalalabad and Dasna, together with its branches the Sohana and the Sultanpur. Further south, the Kalda and Sikandrabad distributaries irrigate the west of pargana Dasna, and lastly there are the large Mát branch canal which takes off at Dehra, and the Jarcha distributary, but neither of these affects this district to any great extent. On the left bank the most important include the left Salawa with its branches, the Dabathua and Meerut, which water the Sardhana and Meerut parganas and command about 16,000 acres. Further south are the left Puth with its large branch the Bhatjan, which irrigate part of Meerut, Jalalabad, Salawa and Hapur; the left Bhola, which waters some 14,000 acres in Meerut and Jalalabad; and the Jalalabad distributary, which supplies 11,100 acres in the same pargana. In pargana Dasna the chief branches are the left Dasna, the Nurpur and the Dehra distributaries, which altogether supply over 30,000 acres, but some of this lies in the Bulandshahr district.

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Works on the canal.

The canal is crossed by bridges at Salawa, Aterna, Sardhana, Nanun and Jatpura in pargana Sardhana; at Puth, Bhola, Jani and Nagla in pargana Meerut; at Niwari, Sondha, Abupura, Muradnagar and Jalalabad in pargana Jalalabad; and at Nurpur, Dasna, Pipalhera, Rauli, Dehra and Nidhauli in pargana Dasna. There are mills at Salawa, Bhola and Dasna, with six pairs of stone at each; those at Salawa are new flour mills of

an improved design. There are inspection-houses on the main canal at Salawa, Sardhana, Bhola, Niwari, Dasna, Dehra and Nidhauli; at Karnawal in Sardhana on the right Salawa distributary; at Khirwa on the left Salawa; at Kaland on the right Jauli; at Mataur, Timkia Ghat and Kaithgauri in pargana Meerut; at Kalchina, Ghiaspur, Sultanpur, Muradnagar and Bhatjan in pargana Jalalabad; at Nizampur on the Bhatjan distributary in Hapur; and at Karanpur and Dahirpur in pargana Dasna. A telegraph line runs along the main canal with a branch from Bhola to Meerut. Signallers are stationed at Meerut, Bhola, Salawa, Niwari and Jauli. The Meerut municipality and cantonments draw their water-supply from the Ganges canal at Bhola, where a pumping station and filters have been built. The water-power at Bhola is utilized to work the engines by means of turbines.

Anúpshahr branch. The Anúpshahr branch canal, which was formerly known as the Fatehgarh branch, leaves the main stream a little below Jauli in the Muzaffarnagar district and enters Meerut at the 14th mile near the village of Mirpur in the north of pargana Hastinapur. As originally constructed, it only extended for 82 miles, but the canal was remodelled at the same time as the main channel and now runs through the districts of Meerut, Bulandshahr and Aligarh to join the Lower Ganges canal. It irrigates the parganas of Hastinapur, Kithor, Garhmuktesar and Puth, running between the high ground bordering on the Ganges khádir and the undulating *bhur* land that extends to the eastern Kali Nadi. The canal has proved of great value as it provides irrigation for a large tract in which the water-supply was formerly very deficient on account of the nature of the soil.

Distributaries. The canal runs directly from north to south as far as Garhmuktesar and then inclines to the south-east. It has a total length of 39 miles in this district. There is a net-work of distributaries and minors on both sides. Two of the most important, the Salarpur and Churiala distributaries, take off from the right and left banks, respectively, in the Muzaffarnagar district. The former runs for a long distance past Niloha in pargana Hastinapur and falls into the Chhoiya Nadi in the west of Kithor: the latter divides into several branches which give water to

some 6,600 acres in the north-east of Hastinapur. At the 16th mile the Akbarpur distributary leaves the left bank and flows south parallel to the canal to a point opposite Parichhatgarh, commanding about 7,800 acres in the Parichhatgarh branch takes off at mile 30 and flows southwards through Kithor, Garhmuktesar and Puth into the Bulandshahr district, giving off a number of minors. At the same point, close to the village of Puthi, the Garhmuktesar distributary leaves the left bank and flows southwards as far as the town of the same name. The only other distributary of any importance is the Kithor, which is also on the left bank, leaving the canal at the 38th mile. It gives off several minors and irrigates the centre of Garhmuktesar and Puth, commanding in all about 24,000 acres.

At its entry into the district the canal flows at a level of 762 feet and leaves the district at a height of 678 feet. There are falls at Akbarpur, Dhakauli, Parichhatgarh, Dibai and Jakhera near the Bulandshahr border. The canal is bridged at Akbarpur, Jhanjhani, Garhmuktesar, Dhakauli and Sathla in pargana Mawana; at Puthi, Kaili, Raidhana, Isapur and Shahjahanpur in pargana Kithor; at Dibai, Newada and Baksar in Garhmuktesar; and at Haraura and Jakhera in Puth. There are bungalows on the main canal at Dhakauli, Parichhatgarh, Raidhana, Shahjahanpur and Baksar; on the distributaries at Firozpur and Sakhoti in Hastinapur; at Shahzadpur, Asafabad and Bhatipura in Kithor; at Janupura in Garhmuktesar and Palwara in Puth. Works on the canal.

The only remaining canal in the district is the small portion of the Agra canal which passes through the southern corner of pargana Loni from the Hindan to the Jumna. Practically no irrigation is done from it in this district, the maximum area hitherto irrigated being only 60 acres. By means of this canal water is conveyed from the Ganges into the Jumna, being diverted into the Hindan from the former by the Deoband branch. The distance from the dam on Hindan to the Jumna is eight miles. There are bridges on this canal at Kinauni, Makanpur and Khondli, and an inspection-house at the Hindan dam. Agra canal.

Irrigation by means of wells is found in almost every part of the district, but the only tracts in which it exceeds the canal-irrigated area are the parganas of Salawa and Hápur to the Wells.

south of Meerut, and Barnawa in the north-west. In Barnawa, which for the most part lies beyond the reach of the canals, the country remains as it was before the construction of the great irrigation channels. Water is found at a great depth below the surface, and the capacity of unprotected wells is unimpaired. At the last settlement it was found that there had been a great decrease in the number of such wells and this was ascribed to the influence of the canals. The latter no doubt have had a great effect on the unprotected wells, but are apparently not the only cause of their deterioration; for it has been observed that in dry years the water-level sinks considerably. Mr. Gillan ascribes their disappearance in part to the increased number of masonry wells which are more remunerative. Close to the canal, however, there is no doubt that the unprotected wells have suffered. As early as 1860 Mr. Forbes remarked that the average duration of such wells had decreased by more than one-half. In 1902 the total number of wells available for irrigation was returned at 17,738; of these 11,388 were of masonry, 1,118 of half masonry and 5,233 earthen. A very large number of masonry wells are at present unemployed, but they would be useful if the canal supplies ran short, and the large number of new wells have done good service by filling up gaps in the irrigation or by rendering it more permanent where they have taken the place of earthen wells. Mr. Gillan sums the matter up by saying that where the latter have become impossible their place has been supplied by other means of irrigation; where they are still necessary they can still be made.

Comparative advantages.

It is very difficult to estimate with anything approaching accuracy the comparative cost of irrigation from wells and from the canals. It appears, however, to be generally agreed that a cultivator whose land receives canal irrigation can cultivate thirty *bighas* with as much facility as the man dependent on well irrigation can twenty *bighas*. One great complaint against the canal system is that the water is frequently shut off when it is most needed. On account of this, and also because they consider that well water is actually superior to that brought from the canals, the Jats, as in Muzaffarnagar, seem to prefer irrigation from wells to any other system.

Other sources.

The other means of irrigation, such as the small streams and tanks, are of very little importance. There has been a large decrease in irrigation from the streams owing to the deepening of the channels by the Canal Department. Irrigation from tanks and jhíls has also fallen off. To some extent this is due to drainage operations which, if they do not always carry off the floods as they were intended, succeed in leaving most of the jhíls quite dry in the cold weather. There are in all 750 tanks in the district available for irrigation, but they are nowhere used to any great extent. They are chiefly employed in the parganas of Meerut, Hapur, and Baghpat; but such irrigation is very unimportant, as it fails when it is most required.

Famines.

The district with its ample means of irrigation is practically secured against famines. As in many parts of the Duáb, a period of scarcity occasioned by the failure of rains causes very little discomfort and is not unfrequently a positive boon. So long ago as 1868 the impetus given by the high prices to the production of food and fodder crops was very great. The rise in prices that occurred was solely due to the heavy exports from this district. The same phenomenon has been observed during other famines, especially during 1896-97 and some landholders have been actually known to have prayed openly for a continuance of scarcity.

Early famines.

We have very little information regarding previous famines in this district. We know that there was a great scarcity in the Duáb owing to a failure of rain in 1291 A.D., but there is no special reference to Meerut.* Another great famine occurred during the reign of Muhammad bin Tughlaq. The people were already greatly oppressed by the exactions of that monarch, and this was followed by a scarcity of rain. Drought continued for several years and thousands of people perished.† Several famines occurred at subsequent periods, but most of these appeared to have been due to the ravages caused by belligerents in the Duáb. In 1631 there was a great scarcity caused by the failure of the rains, and another extraordinary drought wrought havoc in the upper Duáb during the reign of Aurangzeb in 1661. Later on the Sikh invasions produced an artificial

* E. H. I., Vol. III, p. 146. | † E. H. I., Vol. III, pp. 238, 345.

scarcity which was hardly less severe than those caused by the failures of the periodical rains. One of the worst famines recorded was that known as the Chalisa in 1783. For the two previous years the rains were unfavourable, and in the third year there was no rain at all till the end of September. This famine was undoubtedly very severe in the middle Duáb as far as Meerut, but we have no records referring particularly to this district.

Famines since 1800.

In 1804 Colonel Ochterlony, the Resident at Dehli, alludes to a prevalent scarcity of grain, and requested the Collector to send, if possible, 50,000 maunds of wheat if it could be purchased at a rate which, including carriage, could admit of its being sold at 27 *sérs*. He subsequently added that the scarcity was very great, and as the wheat could not be transported at that rate it should be sent on the public account. So poor were the means of communication that it was almost impossible to send any grain at all. In 1805 wheat sold for 20 *sérs* at Meerut, and the Collector considered the price exorbitant. Again in 1807 the distress at Meerut was considerable, after a very plentiful season in the preceding year. In 1817 again prices were very high, and in 1819 and 1820 wheat was sold at 18 *sérs*, which at that time was a famine price. Other bad years were 1824 and 1833. In 1837 occurred one of the worst famines known in this district, and great distress was felt from Saharanpur to Bihar. Extensive relief works were opened, but there are no records referring to the Meerut district, although large numbers are said to have perished from sheer starvation. The famine of 1860, too, was terribly severe, and had it not been for the vast railway works then being made in the neighbourhood of Gháziabad, the lives of thousands must have been lost. Near Gháziabad a mile of high embankment was thrown up by 25,000 labourers in six weeks. Many thousands of cattle changed hands, a sure sign of distress, and prices reached a point higher than any recorded, although at that time the general rise in wages had not yet set in.

1868 and subsequent famines.

The famine of 1868 did not affect this district to any great extent, and the same may be said of all subsequent periods of scarcity. The main canals had been completed and Meerut was

found to be practically secure. Prices were high indeed, and the transfers of cattle were large. When wheat rises to 10 *sérs* and barley to 14 *sérs*, there must be considerable distress; but this state of things was in no small measure due to the high prices prevailing elsewhere and the consequent enormous exports of grain from the district, rather than to any failure of the harvest in Meerut. It is estimated that more than 50 lakhs of maunds of grain were exported in 1868, at first to the lower Duáb, and later on to the Panjáb, Saharanpur and Rohilkhand. Experimental relief works were opened at various points; but the people did not resort to them, and whatever need there was for relief appeared among the poorer urban classes alone, and among them for a short time only. The serious failure of the rains in 1877, too, did no great harm in Meerut. In fact, relief measures were only necessitated by an influx of beggars in search of work and food from the east and south-east. The cultivators, owing to the influx of money, were in good case. A poor-house was started in Meerut in March 1878 and remained open till the middle of April. Some 8,000 persons received food there at the expense of Sheikh Ilahi Bakhsh. The only relief works were the straightening and deepening of the Kali Nadi, the raising of the road from Loni to Shahdara, and similar work on that from Meerut to Bijnor. The two latter were opened in October 1877 and only lasted for a short time; the former was started at the end of November and remained open till July 1878. They could be considered as relief works inasmuch as they were open to all in need of work. To this extent they were very beneficial and prevented any extreme pressure upon the labouring classes. The total cost of the works was Rs. 34,260.

1878.

There was no famine at all in Meerut in 1896, nor any distress. The harvests throughout were very little below the normal and the district was less affected than any other part of the provinces. The zamindars and agriculturists, as has been already mentioned, benefited largely from the high prices prevailing, and only the poorer town population suffered from the enhanced price of all food-grains.

1896.

Prices. The recent famine history of Meerut is, in fact, merely a history of prices. The remarks made in the preceding paragraphs show how greatly the purchasing powers of the rupee have diminished during the past century. In 1806 wheat sold at 50 *sérs*, gram at 70, barley at 80, bajra at 60, and maize at 100 *sérs*, while further north in Saharanpur they were even cheaper. The fluctuations at that time were enormous, owing to the impossibility of transport. In 1819 wheat had risen to 18 *sérs*, gram to 22 and barley to 23. Even then the modern tendency of prices to remain in the neighbourhood of the high-water mark was noticeable. From 1831 to 1841 the average price of wheat at Gháziabad was 28½ *sérs*. This rise was not of a permanent character, but the low prices of the olden times were already a thing of the past. From 1850 to 1859 wheat averaged 36·6 *sérs*, but then came the bad seasons of 1860, 1865, 1867 and 1869, the average price from 1860 to 1869 being as high as 21·3 *sérs* to the rupee. In 1869 wheat reached 10 *sérs*; barley 14, and gram 9½ *sérs*; while in 1861 the price was even higher.

The general rise. In estimating, however, the general rise in prices, we must take averages rather than figures of individual years. From 1850 to 1870 the average price of wheat was 28½ *sérs*; barley, 33 *sérs*; gram, 29 *sérs*; and maize, 33 *sérs*. From 1873 to 1887 the average price of wheat had risen to 20½ *sérs*; gram to 25 *sérs*; and maize to 25½ *sérs*. Since 1887 prices have risen still higher, wheat averaging 17 *sérs* up to 1897; gram 21 *sers*; and maize 21½ *sérs*. Thus wheat increased in price in half a century by 53 per cent., gram by 43 and maize by 42 per cent. These figures, comprising long periods, are at any rate sufficient to prove the general tendency of prices to rise. For the four years subsequent to 1897 the average retail prices have shown no improvement, but rather the reverse, owing to the scarcity in many parts of India. Wheat averaged 14·92 *sérs*; barley, 18·65 *sérs*; gram, 15·09; maize, 19·35, and juar 16·81 *sérs*.

Wages. At the same time there has of late years been a considerable rise in wages, not only of agricultural labourers, but also in the case of unskilled labourers and artizans. In 1815 ordinary labourers received from one anna to an anna and a half per diem.

The rate remained the same till 1850, when it rose to two annas a day for a man and one anna for a boy. In 1870 it had increased by half an anna, while at the present time the average is about three annas a day, or a little less. The wages of bricklayers in 1815 were three annas daily, and in 1850 they varied from 3½ to four annas. In 1870 they had risen to four or five annas, and at present the rate is about 5½ annas daily. This is also the general wage for carpenters and blacksmiths, whereas the average in 1811 was only two annas, and four annas in 1850. It thus appears that although the price of food-grains has increased very largely, there has been a practically proportionate rise in the wages of the lower classes; so that with dearer commodities, but cheaper money, their condition cannot be said to have materially deteriorated, although possibly there has been no great visible improvement.

It is only natural that in a great wheat-producing district like Meerut the question of trade should be very closely connected with the foregoing remarks on prices and scarcity. During recent years, and especially from 1896 to 1901 the failure of the rains in some part or other of India has led to large removals of grain to the affected districts. In 1899 the import of grain into the Kaisarganj bonded warehouse at Meerut was no less than 12,17,600 maunds, and in the following year 10,41,000 maunds. Kaisarganj is the chief trading centre of the district, and an account of it will be given in the article on Meerut city.* A considerable amount of trade is also carried on at the various municipal towns. Hápur is a large and increasing trade centre: two new markets have recently been constructed there, and unless the traders of the place ruin themselves by private feuds, there is every prospect of the place becoming of more and more importance. Gháziabad, too, is a thriving place of business, and on account of its excellent position as a railway junction should show a rapid development in the near future. On the Jumna side, north of Gháziabad, there are flourishing marts at Chaprauli and Khekra which have largely succeeded in ousting the older markets of Baghpat and Baraut. Shahdara is now in a declining state and its trade is Trade.

* *Vide* p. 271 (Meerut City).

insignificant. In the north of the district a large proportion of the exports from the flourishing villages of Sardhana and Barnawa, such as Salawa, Tikri and Doghat, is sent from the Khatauli railway station in Muzaffarnagar. There can be no doubt that the construction of the light railway from Shahdara to Saharanpur and of the line from Meerut to Khurja in Bulandshahr will give a great impetus to trade and lead to the development of new centres of commerce. Already the opening of the Ghaziabad-Moradabad branch of the Oudh and Rohilkhand Railway has greatly increased the facilities for export in the southern part of the district, and similar results will be obtained in the west. At present the produce from the Baghpat tahsíl mainly finds its way to Dehli by road.

evelop-ent of affic.

The development of means of communication has had a far-reaching effect on the trade of the district. As early as 1869 it was found profitable to send grain by rail even to Calcutta, as that was a year of famine, and the same was observed in 1873. Registration of traffic has been attempted at various times; but the figures can only be approximate and the attempt to tabulate them is always unsatisfactory, as while the largest amounts go by rail, a considerable quantity is conveyed both by road and canal. The road traffic is very heavy, owing to the enormous trade in wheat and sugar, and also to the large number of good metalled roads. A few years ago the traffic along the roads near the Jumna was registered, but the returns do not lead to any definite conclusion. Some idea of the trade may be obtained from the octroi statements of the municipalities. In 1901 the amount of grain imported into Meerut, Hapur, Ghaziabad, Sardhana and Baghpat was 14,51,300 maunds and the export 3,90,000 maunds; but this of course excludes Kaisarganj. The figures of the latter are of more importance. The average import of grain from 1896 to 1901 was over 9,42,000 maunds and the export 7,29,000 maunds, exclusive of the quantity removed on payment of duty. Sugar in various forms comes next, the average import being 8,70,300 maunds, and the export 8,49,500 maunds. The other chief articles of commerce are cloth, building materials, oilseeds and spices. Ghí is also largely imported into Meerut, but the export trade is of no

great importance. Tobacco, both raw and manufactured, is chiefly exported to Dehli. The growth of the Meerut trade is illustrated by the fact that in 1870 the import of grain into the city was 2,69,600 maunds and of sugar only 39,000 maunds, the increase under the latter head being most remarkable. A list of the local markets and bazárs will be found in the appendix to this volume.

Fairs.

The most important fair in the district is the Nauchandi, held annually about the end of March or beginning of April at a mile from the city between the Hapur and Garhmuktesar roads. It has been fully described in the article on Meerut city.* Next in importance comes the Garhmuktesar fair, an account of which also has been given in the article on that place. The other fairs, a list of which is given in the appendix, are of less significance. The chief are those at Hastinapur, described in the village article; at Shahdara, where some 10,000 persons assemble from Dehli and the neighbourhood in Sawan; the Ramlila fair at Hapur; the fair in honour of Burha Babu at Khekra; that at Pura on the Hindan in Phagun; and the Tilendi fair at Meerut, held round the Surajkund tank the day after the Holi. The Pura fair is called the Shiuratri and is held at the temple of Parasram. At Dasna there are small Hindu fairs held at the temple of Devi in Kuar and Chait, and a Musalman fair, formerly attended by the Dehli princes, in honour of Sheikh Allahdiya Makhdum Shah Wilayat. At Sikri Khurd considerable gatherings occur in Chait and Kuar in honour of Kalika Devi: one-third of the offerings go to the Goshains and the remainder to the village proprietors. At Behta-Hajipur in the Gháziabad tahsíl a large fair is held in honour of Saiyid Abdullah Shah. Several fairs occur in various parts in honour of Zahir Diwan or Goga Pir and, as in Muzaffarnagar, bear the generic name of *Chhariyán*, from the flags carried by the people. The chief are those at Meerut and at Niloha in tahsíl Mawana. Most of these fairs are of a purely religious nature and little trade is carried on.

Weights and measures.

The weights and measures in use in the Meerut district do not differ from those of the upper Duáb generally. The

* *Vide infra*, p. 274.

standard measures of area, length and weight are now in general use and the old local systems have disappeared. The *sér* is the ordinary weight of 80 tolas, and the old *sér* of 84 rupees is no longer employed. The only measure peculiar to the district is the *dhon* of half a maund. For measures of length the English yard is everywhere used: the former local yard was the Iláhi *gaz* of 33 inches. The standard *bígha* is, as in most districts, 3,025 square yards, and one *bígha* twelve *biswas* equal an English acre. The local *bígha* is a variable quantity, but is usually equivalent to one-third of the standard *bígha*.

Interest. The prevailing rates of interest are the same generally as in Muzaffarnagar and Bulandshahr. Most of the money-lending is in the hands of the village Banias. In Meerut there is the headquarters branch of the Bank of Upper India, and several native banking firms; but these are not, as a rule, resorted to by agriculturists, except market gardeners. Three village banks have recently been started in the district, but as yet the undertaking is purely experimental. In the villages the current rate is about six pies per rupee per mensem, where an article is given in pawn as security. Such advances are only made for short periods, so that the high rate of interest, equivalent to 37½ per cent. per annum, is not severely felt. In large transactions with a mortgage on moveable property, such as carts and cattle, the general rate is about half the above, or 18¾ per cent. per annum. In larger loans with mortgage on houses or lands the rate is much lower, generally about one per cent. per mensem. Petty agricultural advances made solely upon personal security are usually negotiated at half an anna in the rupee monthly: the rate is, of course, high, but the term as a rule is short and the risk considerable. The same with a lien on the crops raised is reduced to about 25 per cent. per annum. In the purchase of estates where there is a prospect of improvement, not less than six per cent. was formerly considered a fair return for money invested. Mr. Gillan* estimated that there has been a great rise in values of late years, amounting to Rs. 39 per cent. since the settlement of 1860, or even more. Taking as representative the sale of revenue-paying lands by private transfers, he ascertained

* Settlement Report, p. 20.

that the average number of years' purchase had risen from 26·6 times the revenue in 1865 to 47·6 for the years 1890 to 1895; and it is probable that the rate has further increased since that time. With 50 years' purchase the return would be only two per cent.

Manufactures. Meerut is not a great manufacturing district, but several industries call for separate mention, as in some cases they give employment to a large number of persons. The chief, perhaps, is that of leather goods—a business which has very largely increased of late years. Large numbers of Chamars are employed in tanning hides in this district. Much of the outturn is exported to Cawnpore and Calcutta by rail, but a fair amount is converted on the spot into boots and shoes and sold at the great leather-market of Dehli. Shoes are made to a considerable extent in Pilkhua and Shahdara, and also at Ghaziabad, Muqimpur and Hapur. (**Leather.**)

Cotton fabrics. The city of Meerut is a considerable centre of the cotton trade and cotton-weaving is carried on largely there and at several other places. The cloth manufactured in the district is not, however, exported, but is solely made for local consumption. The average annual area under cotton in the various tahsíls can be seen from the figures given in the appendix.* Of the outturn more than one-half is exported to the great emporiums of Calcutta and Cawnpore, while the rest is manufactured on the spot. Ginning mills have recently been opened at Hapur, some account of which will be found in the article on that place, and reference has already been made to the growing commercial importance of the town. The ordinary cloths made in the district are those known as *gárha*, *dosuti* and *tisuti*, which are the common coarse fabrics of general use as well as several finer varieties. Turbans are made at Faridnagar and Jahangirpur. There is a fair amount of cotton-printing carried on at Barnawa.

Blankets. Among the other textile fabrics mention should be made of blankets. The centre of this industry is at Nirpura in the Sardhana tahsíl. Sir H. M. Elliot, in his Glossary, states that the *sansla kamals* of this place sometimes sold as high as Rs. 25. They were made of the wool of lambs shorn about three days

* Appendix, Table VI.

after their birth. The *sansla* was from six to eight yards long and about two yards broad. This blanket is now quite unknown, but those most in demand still come from Nirpura. Large numbers of these common blankets are also made at Jawalagarh in Sardhana and at Lawar in pargana Meerut. The wool is chiefly imported from the Panjáb.

Silk. The silk industry is also of some small importance. It chiefly takes the form of embroidery on velvet or silken caps, for which Meerut has a well-deserved reputation. Such embroidery is generally made by Khattri and Kayasth women for the market; but the art is considered an accomplishment in ladies of the higher classes, both Hindu and Musalman, who do not, of course, sell their work. Besides these, silken *sáris* both plain and figured, are also made at Meerut from silk imported from Benares; the usual colours are red and yellow. Handkerchiefs are also made here, but the whole of the silk is imported. Experiments were made by Mr. Michel of Dasna to rear silkworms, but without success, although mulberry trees of every variety were found to grow luxuriantly here. The cause of the failure is the hot winds which the silkworms cannot survive.

Pottery. The village of Bahadurgarh in the Hapur tahsíl is the centre of a thriving pottery industry. This pottery is, properly speaking, a faience, resembling that of Rampur, and indeed is commonly known by that name. It is turned on a double wheel fitted into a pit and worked by the foot, this kind being peculiar to this district, Muzaffarnagar and Rampur. The wheel consists of two discs fixed two feet apart on an axle. The pit is about three feet deep; the smaller disc on which the clay is worked being level with the surface of the ground. The worker sits on the edge of the pit and turns the wheel by pressing the lower disc with his right foot. The motion is more even and continuous than that of the single wheel and is used for the finer kinds of pottery. The kiln or *bhatti* is of the ordinary type, but the vessels are placed on iron stands. Both metallic and vitreous glaze is used, the former being in yellow and green, while the latter is the ordinary native glass whitened with powdered stone or coloured blue with *senta*. The industry appears to have been introduced from Multan, and in style

it almost exactly resembles the ware of that place. Bahadurgarh is the original home of the pottery now known as the Khurja pottery, and the industry has remained since its introduction from Multan about two hundred years ago in the hands of a few Musalman families. The value of the export is considerable, as several of the workers pay income-tax. Generally this Bahadurgarh ware has a red earthen body covered with opaque white enamel painted chiefly in dark blue and turquoise, but sometimes in yellow or dark red.

The remaining manufactures are of little importance, with the exception of the soap-works, mentioned in the article on Meerut city. At Meerut a certain amount of cutlery is made in the shape of knives, scissors and betelnut-cutters or *sarautas*. Glass bracelets are manufactured by Manihars in many places, and especially at Daulatpur in Baghpat and at Panehi. At Baraut iron vessels of various kinds are made, and bells and the brass-work of native pipes are manufactured at Hapur. Large numbers of native bedsteads and other wooden articles are made at Barwala; and at Bāghpat numbers of reed chairs, called *mundhas*, are turned out. The village of Shikohpur in the Gháziabad tahsíl formerly had a reputation for its ornamented elephant goads, but these are now in little demand. Other manufactures.

The district is exceptionally well provided with means of communication. There are at present no less than three lines of railways and a fourth is shortly to be added. The East Indian Railway enters the district on the south from pargana Dadri of Bulandshahr and after a course of four miles reaches Gháziabad. This portion of the line was opened on the 1st of August 1864, and on the same date the section from Ghaziabad to Shahdara and Dehli was completed. The latter was converted from a single to a double track in October 1899. The North-Western Railway, formerly known as the Sindh, Panjab and Dehli Railway, runs from the Ghaziabad junction to Meerut, a distance of 27 miles. This line has running powers over the East Indian from Ghaziabad to Dehli. The portion from Ghaziabad to Meerut was opened on the 18th of April 1867 and the remainder on the 1st of January 1869. There are stations at Muradnagar, Railways.

Begamabad, Mohiuddinpur, Meerut City, Meerut Cantonment and Daurala, which is usually called Sardhana Road. The railway has a total length of 57 miles in this district. The third railway was opened on the 25th of November 1900 and is a branch of the Oudh and Rohilkhand Railway. It runs from Moradabad to Ghaziabad and has stations at Garhmuktesar, Baksar, Babugarh, Hapur and Pilkhua. This line has a length of 45·44 miles in this district. The fourth railway, which will shortly be constructed, is a narrow-gauge light railway from Shahdara to Sahåranpur. This line will follow roughly that of the unmetalled road from Shahdara to Baghpat, Baraut and Shamli. It will thus pass through the centre of pargana Shamli and the Baghpat tahsíl. It is also proposed to make a branch line of this railway to Meerut, taking off at Baraut. Another recently-sanctioned scheme involves the construction of a broad gauge line from Meerut to Hapur and thence to Bulandshahr and Khurja on the East Indian Railway.

Metalled roads.

The district is fortunate in possessing no less than 216 miles of metalled roads, of which 92 miles belong to the provincial roads under the Public Works Department and 124 miles to the local roads. At the same time it may be noted that very little progress has been made in the extension of metalled roads during the last quarter of a century. In 1875 the district possessed 194 miles of metalled roads, so that the increase up to the present time is only 22 miles. Excluding a few feeder roads constructed to link the main lines of communication with the railways, the only considerable length of new metalling is the extension of the Meerut-Baghpat road from Jani to Baghpat. The metalling of the road from Meerut to Bijnor still extends no further than the bridge across the Kali Nadi at Saini, but its extension to Mawana is now being carried out. There has long been a need for a good metalled road through the rich Jat country from Shamli through Baraut and Baghpat to Shahdara, but this will probably be obviated by the construction of the light railway. The road from Meerut to Parichhatgarh is largely used and the traffic passing over it is fully sufficient to justify its metalling. On the other hand, the portion between Nanu and the Muzaffarnagar border of the

road from Meerut to Shamli has been allowed to sink from the first to the second class.

Of the provincial roads the most important is that from Ghâziabad to Meerut and Roorkee, which has a total length of 44 miles 4 furlongs in this district. It was finished in 1859, at a cost of Rs. 1,70,000. There are military encamping-grounds on this road at Begamabad, Meerut and Daurala, and bungalows at Begamabad and Meerut. The Dehli-Aligarh section of the Grand Trunk Road runs for 13 miles 4 furlongs through the district, uniting with the above road at Ghâziabad. The road crosses the Hindan by a bridge begun in 1833 and finished three years later; it stands about two miles west of Ghâziabad, where there is a military encamping-ground and a bungalow. The provincial road from Meerut to Moradabad has a length of 29 miles 4 furlongs in this district and runs in a south-easterly direction through Mau and Kithor to Garhmuktesar, where it crosses the Ganges by a bridge of boats in the dry season and by a ferry during the rains. There are military encamping-grounds at Mau, Sháhjahánpur and Garhmuktesar, where there is also a bungalow. The remaining provincial roads are railway feeder roads leading from Gházíabad and Shahdara to the Grand Trunk Road, and from the Muradnagar, Begamabad and Mohiuddinpur railway-stations to the road from Meerut to Ghâziabad. The average annual cost of upkeep for these provincial roads is Rs. 275 per mile. The provincial roads of the district are all of the first class and are bridged and drained throughout. Some twelve miles of these roads are stations and railway feeder roads, situated for the most part within municipal and cantonment limits.

Provincial roads.

Of the remaining metalled roads the longest is that from Ghâziabad to Hapur and Garhmuktesar, which has a total length of 42 miles 3 furlongs. This road passes through Dasna, Pilkhua, Hapur, Babugarh and Baksar and runs parallel to the Oudh and Rohilkhand Railway. There are military encamping-grounds at Pilkhua and Aupera. The remaining roads of this class all radiate from Meerut, and lead to Bulandshahr, Sardhana, Baghpat and Bijnor. The first of these passes through Hapur and runs for 26 miles 3 furlongs through the

Local metalled roads.

district, eventually joining the Grand Trunk Road at Bhur near Bulandshahr. There are encamping-grounds on this road at Hapur and Kharkhauda. The road from Meerut to Sardhana is 10 miles 2 furlongs in length and runs in a north-westerly direction as far as Nanu on the Ganges canal and thence due north to Sardhana. The road from Meerut to Baghpat is 28 miles in length. It crosses the Hindan near the village of Baleni by a bridge of boats which is replaced by a ferry during the rains. The road from Meerut to Bijnor has already been mentioned. It is at present only metalled for five miles, but when the projected extension is completed, the metalling will extend for another nine miles to Mawana. The remainder of this road is unmetalled and of an inferior description. There are bridges over the Kali Nadi and the eastern Chhoiya. The average annual cost of upkeep for these local metalled roads is Rs. 269 per mile.

Unmetalled roads.

The unmetalled roads of the district are divided into three classes, known as second-class unmetalled roads bridged and drained throughout, third-class roads, banked and surfaced but not drained, and fourth-class roads, banked but not surfaced. The second-class roads are maintained at an annual cost of Rs. 20 per mile, exclusive of about Rs. 500 for the repairs of bridges and culverts. Most of these roads are very bad. The traffic is very heavy at almost all seasons of the year, and scores deep ruts in them—a state of things which is frequently aggravated by waterlogging. The amount allotted for repairs is very inadequate, but it is doubtful whether treble the amount of money spent on earthwork would be of much avail. The third-class roads are maintained at a cost of Rs. 10 per mile, exclusive of a few hundred rupees for repairs to culverts. The fourth-class roads are little more than slightly broadened and straightened village cart tracks, and have very few culverts. The average annual allotment for their maintenance is Rs. 6 per mile. The condition of the roads belonging to the last two classes is generally worse than those of the second class. A good deal of obstruction is caused by the practice of constructing irrigation channels across the roads, or by leakage from imperfect syphons.

Second-class roads.

The second-class roads of the district are six in number. The most important is that from Shahdara to Shamli and Saharanpur, which passes through Loni, Baghpat and Baraut, and has a course of 31 miles in this district. It crosses the eastern Jumna canal by a bridge near Baraut. The second runs from Baraut to Sardhana, crossing the Hindan by a ferry near Barnawa. It has a total length of 22 miles. The road from Meerut to Bijnor has already been mentioned. The unmetalled portion from Saini to the borders of the district is 21 miles in length. The three remaining roads are all less important; one leaves the road from Meerut to Sardhana at Nanu on the Ganges canal and goes north-west to Shamli in Muzaffarnagar, having a length of ten miles six furlongs in this district. Another is the road from Sardhana to the railway station at Daurala, a distance of five miles four furlongs; and a third is that from Mawana Khurd on the Bijnor road to Mawana Kalan, the headquarters of the tahsíl.

Third and fourth-class roads.

The third and fourth-class roads will be found in the list given in the appendix. Several of them are of considerable importance and carry a heavy traffic. There are altogether 238 miles of third-class roads and 57 miles of fourth class-roads in the district. Among the former may be mentioned the roads from Meerut to Parichhatgarh and Kamaruddinnagarghat on the Ganges: from Hapur to Begamabad and Baghpat; from Kithor to Mawana and Bahsuma; from Baghpat to Muradnagar and Jalalabad; from Meerut to Binauli, where it joins the road from Baraut to Sardhana; from Sardhana to Aminnagar and Daula on the road from Meerut to Baghpat; and from Meerut to Lawar and Phalauda.

Arboriculture.

Most of the metalled roads are fairly well lined with avenues of trees of various kinds. Arboricultural operations on the provincial roads are managed by the Public Works Department, and those on all local roads are under the control of the District Board, which has recently entrusted the care of the trees on all the local metalled roads to the District Engineer. On the provincial roads there are about 57 miles of avenues, including young plantations, and the receipts under this head have averaged about Rs. 1,700 during the past three years,

as against an expenditure of Rs. 630. On the local roads there are 138 miles of avenues, of which 99 miles are on metalled roads and 39 miles on unmetalled roads. The average annual receipts realized by the District Board under this head, as well as from the sale of roadside grass and from the trees planted along the Kali Nadi and elsewhere, as ascertained from the figures of the last three years, amounts to about Rs. 5,220 as against an average expenditure of Rs. 2,070.

Ferries. There is only one ferry in the district included under provincial works. This is the bridge of boats at Garhmuktesar on the road from Meerut to Moradabad, which is replaced by a ferry during the rains. For military purposes the place of this bridge of boats can be taken by the railway bridge on the Oudh and Rohilkhand line. Those managed by the District Board include the bridge of boats over the Ganges at Puth; similar bridges at Baghpat over the Jumna and at Baleni over the Hindan; the ferry at Barnawa over the Hindan and at Abdullapur over the Kali Nadi on the road from Meerut to Parichhatgarh. There is a third ferry over the Hindan at Baparsi, a mile south of Malahra on the road to Shamli, under the management of the Meerut District Board, and another on the road from Baghpat to Muradnagar. The remaining ferries over the Ganges are managed by the District Board of Bijnor. They are known as the Rauli, Daranagar, Jafarabad and Makhdumpur ferries. The management of the Garhmuktesar ferry was transferred from Moradabad to Meerut in the year 1844. Besides these, there are several private ferries in the district; the chief of these are those at Jagatpur in pargana Loni over the Jumna, called Ghat Wazirabad from the town of that name on the opposite side of the river, and in the same pargana at Badarpur and Chilla, known as the Barari and Okhliya ferries respectively, from the villages on the other side of the river.

Canal roads. The embankments along the various canals also afford a useful means of communication and are largely employed by the people. They have the advantage of always being in fair order, although they are not, of course, designed to bear heavy traffic. They are all under the management of the canal

authorities, and consequently are not included among the regular roads of the district.

As has been already mentioned, the rivers of the district are not much used as means of communication. The canals, however, are of more importance, as both the Ganges and the Eastern Jumna Canal were constructed with the express design of affording communication by boat between the places on their banks, although in the case of the latter the locks were never completed, thus rendering navigation impossible. They have been, however, largely supplanted by the railways, and the traffic has greatly decreased since 1870. On the Ganges canal there is sufficient water for boats of 300 maunds burthen all the way from Hardwar and Roorkee to Cawnpore. The principal ghats are at Sardhana, Salawa, Nanun, Jani, Niwari, Muradnagar and Bhola. The chief articles of transport are grain and timber, the rate being Rs. 50 per boat per annum. The returns show that Nanun and Muradnagar are the chief centres of canal traffic in this district. For the years 1898 to 1900 the average imports at Nanun were over 329,000 maunds, and the exports nearly 204,000 maunds. The chief articles of export were building materials, sugar and wheat, and the imports firewood, timber, grass, wheat and other grains. The figures at Muradnagar were imports 105,000 maunds and exports 12,850 maunds, the former consisting chiefly of wheat, timber, firewood and sugar, and the latter consisting chiefly of miscellaneous articles. Waterways.

CHAPTER III.

The People.

The first enumeration of the population of this district took place in 1847, under the superintendence of Mr. C. Gubbins and Mr. E. C. Bayley. The district had not then assumed its present form, and on that account a close comparison with the present statistics is impossible. The total population then enumerated was 860,736 souls, giving a density of 488 to the square mile. The total number of inhabited villages in the district was then 1,457, of which 1,252 contained less than 1,000 inhabitants, 187 between 1,000 and 5,000, and eighteen over 5,000. The figures show that the agricultural population numbered 392,109 persons. Hindus numbered 656,837, and Musalmans 203,899. These together formed the whole population of the district, which is in itself a sufficient illustration of the general roughness of this enumeration. Census of 1847.

The first regular census was taken in 1853. The total population of the district as it then stood numbered 1,135,072 souls, giving a density of 516 to the square mile. The apparent increase was enormous, as the Hindus alone greatly exceeded the total population of the district as enumerated six years previously. There were then 1,373 villages, of which 1,077 contained less than 1,000 inhabitants, 288 between 1,000 and 5,000, and only eight with more than 5,000 inhabitants. 1853.

The second regular census was taken on the 10th of January, 1865, and was probably far more accurate than the preceding one. The total population then amounted to 1,211,281 persons, giving a density of 513 people to the square mile, the apparent decrease being due to alterations in the area of the district. The census returns gave a total of 1,464 inhabited sites, of which 1,139 contained less than 1,000 inhabitants, 312 between 1,000 1865.

and 5,000 and 13 with over 5,000 inhabitants. Meerut, Sardhana and Hapur alone contained over 10,000 persons.

1872. The third regular census was effected on the night of the 18th January, 1872. This was a more complete enumeration than any previously attempted. The district then contained 1,273,914 inhabitants, showing an increase of 62,633 persons during the preceding seven years, and giving a density of 541 persons to the square mile. There were then 1,573 inhabited sites in the district, of which 1,223 had a population of less than 1,000 persons, 335 between 1,000 and 5,000, while 15 possessed over 5,000 inhabitants.

1881. The fourth regular census of the Meerut district took place in 1881, when the total population recorded was 1,313,137, showing an increase of 36,970 persons during the preceding nine years. This small proportionate increase appears to be due not only to the several years of scarcity that occurred during the intervening period, but also to the severe epidemics of fever that raged throughout the district from time to time. The density rose to 551·9 per cent. to the square mile, which was considerably greater than that of any other district of the division, and only exceeded by Bareilly in the whole of the Duáb and Rohilkhand.

1891 and 1901. Since 1881 the population of the district has increased by leaps and bounds. In 1891 Meerut contained 1,391,458 inhabitants, showing an increase of 78,321 persons during the preceding ten years, and giving a density of 587·2 to the square mile. This increase was more than maintained during the following ten years, for at the last census of 1901 the district of Meerut contained a total population of 1,540,175 persons, showing the enormous increase of 148,717 persons, and giving a density of 652 persons to the square mile.

The district is thus larger in point of population than all the districts of the United Provinces, with the exception of Gorakhpur and Basti alone. In point of density it is surpassed by many districts in the east of the provinces, but it still holds the same relative position in the tract of country lying west of Oudh, as in this respect it is surpassed by Bareilly alone. There are now 1,521 inhabited towns and villages in the district, of

which 1,071 have a population of less than 1,000 persons, 426 between 1,000 and 5,000 and 24 with over 5,000 inhabitants.

The chief town in the district is of course Meerut itself, the population of the municipality and cantonments amounting to 118,129 persons. Next to this come the municipalities of Hapur, Sardhana and Gház̈iabad, all of which have a population of over 10,000 persons. The towns possessing more than 5,000 inhabitants are Mawana, Khekra, Garhmuktesar, Baraut, Chaprauli, Parichhatgarh, Baghpat, Pilkhua, Faridnagar, Shahdara, Phalauda and Lawar. The rural population of the district numbered 1,265,200 persons as against 274,975 living in the towns. The urban population thus stands in the proportion of 17·8 to the whole; but in this connection it must be remembered that over thirty per cent. of the rural population live in villages containing more than 2,000 inhabitants. The number of large villages is in fact a noticeable feature in this district, and is especially marked in the western parganas comprising the Baghpat tahsíl. Many villages, purely agricultural, might be quoted with 5,000 inhabitants, and in pargana Barnawa, for instance, there is a cluster of villages, called the Chaugaon, with a population of no less than 22,045 persons. The population is most dense in the most fertile tracts, and here, too, the largest and most compact village sites are to be found. Towns.

The enormous increase in the population, which amounts to as much as 20·7 per cent. since 1872 and which has been most noticeable during the past ten years, can only be ascribed to the general prosperity of the district and its comparative immunity from natural calamities. The district lies in the centre of the most prosperous tract of the United Provinces, supplied as it is with ample and greatly-improved means of communication, and above all fully protected by canals, while its inhabitants include the finest tribes of peasantry to be found anywhere. The population has not been swelled to any appreciable extent by immigration, for at the last census out of every 10,000 inhabitants no less than 9,714 were born either in the district itself or in adjoining territory, the number of the latter being much smaller than in any other part of the Duáb. The number of immigrants is only 9·9 per cent., which is in fact much smaller than Causes of the increase.

that recorded in 1891. Further, it must be observed that three-fifths of these were females, most of whom appear to have come to the district after the prevailing marriage custom of the country.

Sex. Regarding the whole population as divided according to sexes, we find 820,563 males enumerated in 1901, as against 719,612 females. The same disproportion has been observed at all preceding enumerations, for in 1872 it was recorded that the number of Hindu males was 54·2 per cent. of the entire Hindu population, and that of Musalman males 52·4 per cent., giving a percentage of 53·8 per cent. of males to the total population. The excess of males is thus 100,951—a figure considerably greater than that observed in any other district of the provinces, although the proportionate excess is more marked in many places. The district thus resembles the whole of the Duáb and Rohilkhand, so that the phenomenon is by no means peculiar to Meerut. As elsewhere, it has been observed that the proportionate number of females has shown a gradual, but constant, tendency to increase during the past forty years, but this has been ascribed to improvements in the record. Many theories have been put forward to explain this disproportion, but none of them are conclusive or even satisfactory.

Religions. Of the whole population classified by religions according to the figures of the 1901 census, 1,145,728 were Hindus, 359,895 Musalmans, 16,930 Jains, 12,203 Christians, 5,056 Aryas, 360 Sikhs and three Parsis. Hindus thus comprise 74·39 per cent. of the population and Musalmans 23·37. In 1872 it was observed that the percentage of Hindus was as much as 77·8 of the total population. As in almost every district of the Duáb, the proportionate numbers of Hindus have steadily declined, the percentage falling to 76 in 1881 and to 75·27 in 1891. At the same time the Musalmans have steadily increased almost everywhere. The proportion has risen from 22·44 per cent. in 1881 to 22·78 per cent. in 1891, while the last census shows a still further increase. This tendency to change in the respective numerical proportion of the two creeds is by no means peculiar to the Meerut district, and therefore may be taken as an accepted fact in common with the

disproportion of sex. The reason generally given is that the Musalmans are not on the whole so poor as the Hindus and also benefit from a more liberal diet. The comparatively large proportion of the Musalmans to the total population is noticeable throughout the Meerut division, but the number in this district is only exceeded in Muzaffarnagar and Saharanpur of the Meerut division and in Moradabad, Bijnor, Naini Tal and Bareilly elsewhere.

Christianity. The spread of Christianity in this district during the last few decades is very remarkable. The native Christians in 1872 numbered 730 persons in all. The figure rose to 1,121 in 1881 and remained practically stationary for the next ten years. At the last census, however, it had increased by no less than 8,194 persons, giving a total number of 9,315. This increase is far greater than in any other district in the province. It is chiefly due to the extension of Missionary enterprise and especially to the work of the American Episcopal Methodist Mission.

Missions. There are now four branches of Christian Missions in this district—the Church Missionary Society, the American Methodist Episcopal Church Mission, the Reformed Presbyterian Church Mission and the Roman Catholic Mission. The oldest is the Church Missionary Society, which commenced the work in Meerut City in 1815. Little progress, however, appears to have been made for many years. St. Paul's Church in cantonments was built in 1830 and consecrated in 1840. Since 1892 this building has been used by the Chaplain of Meerut as a parochial school for European children. St. Thomas's Church near the city was completed in 1869, at a cost of Rs. 10,000. The present Church Missionary Society Mission premises stand on the site of the old Commissioner's Court which was destroyed by fire in the mutiny. The property was sold to the Society in 1862. The premises contain two mission bungalows, a hostel for native Christian boys, and some houses for native Christians. The Church Missionary Society high school was erected at a cost of about Rs. 7,500, and has since been considerably enlarged. Two churches at Kankar Khera and Maliyana, villages in the suburbs of Meerut, were erected by the Mission between

1858 and 1861. There is also a Zanana Mission in the city which supports six girls' schools in addition to private teaching.

Church Missionary Society. For a long time the Society confined its efforts to the city of Meerut, but branches were started at Pilkhua and Hapur in 1863 and at Gháziabad in 1867. With these exceptions, all the existing settlements date from the last few years. The Parichhatgarh Mission was opened in 1891 and that at Hapur, which has been closed for many years, was restarted in 1897. Two more branches were opened in 1898; the third at Khajuri in 1899 and a fourth at Laluiya in 1900. The missions at Gháziabad and Pilkhua have continued to exist since their foundations. At the former place there is a mission bungalow occupied by the Zanana Mission, and also an anglo-vernacular middle school erected in 1886. The work of the Society is chiefly confined to the sweeper class, and the converts at present number about 600. The movement is spreading.

American Methodists. The American Methodist Mission opened work in the Meerut district in 1887. Their headquarters are at Meerut, where they have two boarding schools for boys and girls, with 51 and 112 pupils respectively. They also have stations all over the district. In the Meerut tahsíl there are agents all Dulehra, Gagaul and Phaphunda; in Mawana tahsíl at Mawana, Phalauda, Bahsuma, Parichhatgarh, Kithor, Manchra and Medaphara; in the Hapur tahsíl at Hapur, Babugarh, Tatarpur, Mahmudpur, Baksar, Bagarpur and Garhmuktesar; in the Gháziabad tahsíl at Gháziabad, Dasna, Pilkhua, Shahdara, Muradnagar and Begamabad; in the Baghpat tahsíl at Baghpat, Sururpur, Baoli, Kirthal, Daha and Aminnagar Sarai; and in the Sardhana tahsíl at Sardhana. The number of converts belonging to this Society has outrun the other branches of Christianity, but it admits persons very easily and after a little superficial instruction. About 8,000 persons have been baptized and many others are said to be seeking instruction. In the Sardhana and Baghpat tahsíls there have been many baptisms among the Chamars, but with these exceptions the converts come mainly from the sweeper class.

Reformed Presbyterians.

The Reformed Presbyterian Church Mission is another recent introduction into the district. Their headquarters are at Dehli and they have branches at Shahdara in Ghaziabad and at Chaprauli and Baraut in Baghpat. The converts are mainly Chamars and number about 300.

Roman Catholics.

The Roman Catholics have their headquarters at Sardhana, where there are 1,100 Native Christians, including the descendants of those who embraced Christianity in the time of Begam Somru. Besides these there are about 300 orphan children from Bundelkhand, whose parents perished or were lost sight of in the famine of 1897. The Begam's palace, which was purchased by the Roman Catholics a few years ago, is used as an orphanage. There is a fine church, St. John's College, where native priests are trained, and a convent school for girls. In 1898 a settlement was made at Dasna, where there are now about 250 converts under the guidance of a resident priest. A beginning has also been made at Dabathua and other villages, which are visited by the resident priest of Meerut.

Spread of Christianity.

The spread of Christianity is likely to have important results in the more future, as the movement has gained so much strength, especially among the sweepers, that they are ready to be reckoned as Christians almost *en bloc*. Conversion engenders a spread of independence which is hateful to zamindars, who have long regarded the sweepers and Chamars as mere serfs, and has on many occasions led to trouble and frequent cases in the criminal courts. There is, however, no opposition to the Missionaries themselves, who are always treated with respect and frequently listened to with attention even by those who in their absence are foremost in persecuting the converts. Both Hindu and Musalman zamindars equally object to the conversion of their sweepers and labourers, but the latter are far more prone to manifest their animosity in acts. The Missionaries do all in their power to induce the converts to work for the zamindars as before, but the latter are unable to compel them to work without pay to the same extent as before their conversion. Unfortunately, however, the independence inculcated by the Christian teaching not unfrequently develops into insolence.

Arya Samáj.

The Arya Samáj has also made great progress in this district. The movement was started in Meerut by Swami Dayanand Saraswati, when he paid his first visit here in 1878. The movement spread rapidly from the outset. In 1884 the Samáj bought the plot of land on which its buildings now stand and completed them in 1889 at a cost of Rs. 15,000. In 1884 also a school was started, but this was given up in 1888. The Samáj took a leading part in the establishment of an Arya Prathinidhi Sabha for the North-Western Provinces and Oudh in 1886, and the inaugural meeting of the Sabha was held at Meerut. In 1887 the Dayananda Anglo-Vedic College Trust and Management Society started the Dayananda Anglo-Vedic school at Meerut in premises provided by the Meerut Samáj. From 1888 to 1889 the Samáj had an organ of its own, published in Meerut, known as the Arya Samachar, an Urdu monthly magazine. In 1899 the paper was made over to the Dayanand Anglo-Vedic Trust and Management Society, from whose office it is now published. In 1887 an Arya Debating Society was founded. The Lodge at Meerut is the principal one, but it has no control over those in the rest of the district, which deal directly with the provincial Arya Prathinidhi Sabha. There are settlements of the Arya Samáj at Mawana, Phalauda, Lawar, Hapur, Gháziabad, Baraut, Chhur, Kirthal, Parichhatgarh, Kapsadh, Dhakauli and Nagla Hareru. The Aryas, who numbered 5,056 in all, have almost doubled their numbers in the last ten years. They are chiefly drawn from the higher Hindu castes, the great majority of them being Brahmans and Banias. There are also large number of Jats, Rajputs, Tagas, Kayasths and Khattris. At the same time we find several numbers of the lower castes, but these are found in a very small proportion to the whole.

Jains.

The Jains are more numerous in Meerut than in any other district of the provinces. They numbered at the last census 16,930 persons, of whom 7,812 were females. Almost the whole of them are Banias of the Agarwal subdivision and are generally known as Saraugis. As in Muzaffarnagar, they form one of most important sections of the mercantile community and are deserving of notice on account of their influence and

wealth. They are chiefly found in the Baghpat, Sardhana and Meerut tahsíls, but considerable numbers occur throughout the district. They own a large amount of land in different places, and at any rate in the west, hold the greater part of the export trade in grain. In the Baghpat tahsíl almost all the traders, both great and small, are Saraugis. There are large numbers of Jain temples in all parts of the district, many of them being of recent construction, but none of them are of any great importance.

Musalmans. The Musalman religion cannot be said to be making any progress in the district, as practically no conversions are made, although their numbers are proportionately on the increase as compared with those of the Hindus. The great majority of the Musalmans are Sunnis. The Shias are comparatively scarce, amounting to 5,877 persons in all, but they form a somewhat influential minority. Among the remainder there are some 10,000 Lalbegis, who are more numerous in this district than anywhere else in the provinces. Taken as a whole, the Musalmans of Meerut are very poor. Large estates have passed into the hands of Hindu money-lenders, although the proportion of land held by the Musalmans has been greatly increased of late years owing to the purchases made by Hafiz Abdul Karim of Meerut.

Sheikhs. The most numerous Musalmans are the Sheikhs, who in 1901 numbered 49,818 persons or fourteen per cent. of the whole Musalman population. These Sheikhs belong chiefly to the Siddiqi and Qurreshi subdivisions, both of whom are more strongly represented here than in any other district of the division. The great majority of the Sheikhs are in poor circumstances, but they are recorded as the possessors of as much as 74,944 acres. Of these, however, 17,629 acres have been gained within the last thirty years, owing to the purchases made by Sheikh Hafiz Abdul Karim Khan Bahadur, C.I.E., who is now the largest landed proprietor in the district. He is the brother of Sheikh Ilahi Bakhsh, a Government commissariat contractor, who amassed much wealth during his long and prosperous career. The family resides in Meerut cantonments.

Musalman Rajputs.

Next to the Sheikhs come the converted Rajputs, numbering 45,901 persons and forming 12·7 per cent. of the total Musalman population. These Musalman Rajputs are more numerous than in any other district of the province, although large numbers are to be found throughout the Meerut division. They belong chiefly to the Chauhan, Pundir and Tomar clans, but there are also large numbers of Bargujars, Bhattis, Bhale Sultans, Gahlots and others. Gahlots hold nine villages in the district, while the Tomars own eight in Hapur and three in Baghpat. Altogether the Musalman Rajputs own about forty-five villages. Like their Hindu brethren, the Musalman Rajputs have lost a good deal of their property during the past thirty years, but they may still be reckoned among the larger proprietors of the district.

Julahas.

The Julahas numbered 32,778 in 1901. They are weavers by profession, and a large number of them still follow their hereditary calling and turn out large amounts of country cloth. The majority, however, have taken to agriculture, which they follow with fair success. Next to them come Qassábs or butchers, numbering 21,408 persons, who may be dismissed without further mention.

Pathans.

Pathans in 1901 numbered 19,361 persons or 5·4 per cent. of the total Musalman population. Among them may be found representatives of many clans, but the chief are the Yusufzais and Ghoris, the numbers of the former being only exceeded in Lucknow. Among the remainder may be mentioned the Lodi, Rohilla, Kakar, Bangash, Tarin and Afridi Pathans. They own land in many parts of the district, their property now amounting to 35,912 acres. Like the Sheikhs they have lost greatly of late years, the area that has passed out of their hands since 1865 amounting to 6,130 acres.

Saiyids.

The Saiyids, though fewer in number, are much more important. In 1901 there were 14,681 Saiyids in the district, half of whom belong to the Zaidi and Husaini subdivisions in almost equal proportions. There are also large numbers of Rizwi, Jafari and Bukhari Saiyids. They are found chiefly in the north of the district and are for the most part related to the great Saiyid families of Muzaffarnagar. They now possess landed property to the extent of over 90,000 acres, but have lost

9,844 acres since the settlement of 1865. As in Muzaffarnagar, their decline is chiefly due to extravagance and mismanagement. Their property is chiefly held in coparcenary tenure, some of the communities, as for instance that of Abdullapur, owning extensive estates; but the shares have constantly been subdivided, so that their condition is less satisfactory than that of the other classes.

Mention should, however, be made of the great Muzwi family of Sardhana, the present representative of which is Nawab Saiyid Ahmad Shah. The family is descended from Hayat Ali Musa Raza and originally resided at Paghman, twelve miles from Kabul. On account of services rendered to Alexander Burnes in his Kabul Mission, and subsequently to the English in their retreat from Kabul, they were expelled from Afghanistan and settled at Sardhana. During the mutiny the head of the family was Saiyid Muhammad Jan Fishan Khan Sahib, who held a pension of Rs. 1,000 per mensem. He raised a body of horse and did good service, both in this district and before Dehli. For these services he received the title of Nawab Bahadur. Nawab Jan Fishan Khan died in 1864, and his eldest surviving son, Muhammad Ali Shah, was recognised as the head of the family and received the title of Nawab. He died in 1874, leaving no male issue; but was succeeded by his brother, Saiyid Ali Shah, to whom the pension was paid as representative of the family. Saiyid Ali Shah received the title of Nawab as a personal distinction in 1876. He died in 1880 and was succeeded by his brother, Saiyid Ahmad Shah, to whom the title was continued for life in 1882. The family hold large estates chiefly in the Sardhana tahsíl, paying a revenue of Rs. 41,000. The Saiyids of Sardhana.

The Tagas numbered 19,886 persons at the last census, the Musalman representatives of this caste being very much more numerous in this district than anywhere else in the provinces. Like their Hindu brethren, they are excellent cultivators and own a fair amount of land. The Musalman Jats, on the other hand, appear to have deteriorated since embracing Islam. They numbered 6,438 in all and are chiefly found in the south and west of the district. The other Musalman castes call for little Musalman Tagas. Musalman Jats. Other Musalmans.

mention. The most numerous are Faqirs, Bhangis, Bhishtis, Lohars, Telis and Barhais, all of whom have more than 10,000 representatives, while closely following on them come Darzis, Dhobis and Nais. All of these for the most part follow their special vocations, but are also found in every part of the district as agriculturists. It may be noticed that Bhishtis, Musalman Bhangis and Dhobis are found in greater numbers here than in any other district of the provinces.

Among the less numerous Musalman castes which occur in proportionately large numbers in the Meerut district we may mention the Gaddis, Ghosis, Manihars, Kambohs and Mewatis; but none of these, save the Kambohs, are of any importance. The Gaddis and Ghosis are agriculturists, who also turn their attention largely to cattle-breeding. The Manihars manufacture rough glass, which they work into the ordinary glass bangles of the country. Their chief settlements are at Daulatpur in Baghpat and at Panehi. The Mewatis are descendants of Hindu Meos, who embraced Islam at an early date. They are found throughout the upper Duáb, but especially in the Bulandshahr district. Their reputation is everywhere indifferent and, as in former times, they constantly appear in the criminal courts.

Kambohs. Musalman Kambohs are only found in larger numbers in the Saharanpur district. Here they amounted to 430 persons at the last census. They own several villages, chiefly in the Gháziabad and Meerut tahsíls. There are still a few Hindu Kambohs in the district, but they do not occur in anything approaching the proportions that we find in Muzaffarnagar and Sahâranpur. The Kambohs state that in early times they belonged to a distinguished family in Ghazni. The present head of the family considers that the name is derived from that of their original home. The tradition of the Musalman Kambohs takes no account of the Hindu members of the clan, and it seems probable that they were among the earliest Hindu converts to Islam and were rewarded for their change of religion by the grants of land in Meerut. The Musalman Kambohs assert that one Hasan Mahmudi, Kamboh, was Wazir of Mahmud of Ghazni, and that their ancestors succeeded in

capturing the city from Raja Mai of Meerut. They further state that Hasan Mahmudi built the Jami Masjid in the city and that around it are buried the Kambohs who fell in the attack on Meerut. According to the same account all the Kambohs, except Khwaja-ud-din and Khwaja Meta, left Meerut, and from these two the Kambohs of the present day derive their origin. Early members of the family built the Sangi Mahal, both of which are still in existence. In later days the most noted member of the family was Nawab Muhammad Khan or Khairandesh Khan, who flourished during the reigns of Shahjahan and Aurangzeb and built the Khairnagar gate and fort in the city. He also built in 1690 A.D. a fine mosque, called "Khair-ul-masajid wald muabid," and founded Khairandeshpur in Etawah, and also gave his name to muhallas in Etawah and Dehli. He is said to have been at different times governor of Katehr, Bihar, Etawah, Bengal and other places. He was succeeded by his son, Khairiyat Andesh Khan, governor of Kashmir, who was followed by Afiyat Andesh Khan, deputy governor of Etawah; Farhat Andesh Khan, Mubarak Ali Khan, Ahmad-ullah Khan, and Nawab Asad-ullah Khan, Khan Bahadur. Mubarak Ali Khan held the office of honorary magistrate and died in 1876. His son, Ahmad-ullah Khan, was also an honorary magistrate and exercised special magisterial powers throughout the whole district. He received the title of Nawab from Government and died in 1892. The present representative of the family, Nawab Asad-ullah Khan, is, like his father, an honorary magistrate and vice-chairman of the district and municipal boards. The title of Khan Bahadur was conferred on him in 1888 for his services in the Salt Department, and that of Nawab in 1895. His brother, Islam-ullah, is a district superintendent of police in these provinces, and another brother, Saif-ullah Khan, is a deputy collector. These Kambohs consider themselves Qurreshi Sheikhs. Other settlements of the clan were made at Bareilly, Amroha, Sambhal and at Marehra in the Etah district.

There is another family of Musalman Kambohs related to the above, of whom the present head is Munshi Muhammad Sadiq, Khan Bahadur. His father, Haji Muhammad Mumtaz

Ali Khan, was a tahsíldár and an honorary magistrate. Munshi Muhammad Sadiq was a deputy magistrate in the Irrigation Department and received a sanad from Lord Canning for services rendered during the mutiny; he received the title of Khan Bahadur in 1887.

Hindus. Chamars. Turning to the Hindus we find the must numerous castes, as shown by the latest census returns, to be the Chamars. These numbered no less than 223,385 persons, and form as much as 19·5 per cent. of the whole Hindu population. They are more numerous in Meerut than in any other part of the provinces, the Gorakhpur Division alone excepted. The Chamars, besides being employed largely in the leather business, form the bulk of the agricultural labourers of the district and are found in every pargana, being only outnumbered by Jats in the Baghpat tahsíl. They own no land anywhere. Formerly they were in a state of serfdom, but they have now almost entirely emerged from it.

Up to few years ago it was no uncommon occurrence for a Chamar or other labourer to bring a charge of criminal trespass or assault against his zamíndár on the ground that he was ejected from his house or beaten for refusing to work. As a matter of fact the Chamars are now comparatively independent, owing chiefly to the increase in the price of labour, although this has been to some extent counterbalanced by the rise in the prices of food-stuffs. Cash payments to agricultural labourers, too, are more common than formerly, so that the Chamars are not now dependent for an existence on the good will of the zamíndárs. The Chamars as a body are in a fairly satisfactory state. As labourers they are always in request, and complaints of one zamíndár against another for enticing away his Chamars are not infrequent, thus pointing to the value set on the latter.

Jats. Next in point of number of the Chamars come the Jats, with a total of 184,342 persons or over sixteen per cent. of the total Hindu population. The Jats are the most important and most industrious of all the cultivators, not only in this district, but in the entire Meerut division. They are much more numerous in Meerut than in any other district of the provinces, and to this fact may in large measure be ascribed the general

prosperity of the district. Mr. Gillan writes:* "The Jats are hard thrifty men, and, it is hardly necessary to say, admirable cultivators. They are found all through the district and nearly everywhere in large numbers, but their chief possessions are in the north-west, where they almost monopolize several parganas, which they call their '*des.*' That they should occupy the best land here is not surprising, since it is at this point that they are said to have invaded the district, driving out the Tagas before them. It is remarkable, however, that in nearly all parganas they have succeeded in getting the best tracts. Whenever possible they have chosen the naturally fertile soil to start with, and when they find that they have to work on a poorer basis they make the best of it." At the last settlement the Jats were the proprietors of 389,048 acres or 27 per cent. of the whole district. They always pay heavy assessments, but almost invariably they are fully equal to it, although they are frequently hampered by the minute subdivision of their estates. In 1870 there were 31,676 sharers, but this had risen in 1900 to as many as 44,039. They almost always hold their land in bhaiyachara tenure and most of the soil cultivated by men who are tenants in one plot and proprietors in another. In the settlement report Jat tenants are recorded as being in possession of no less than 147,960 acres, or more than one-fourth of the whole cultivation.† More than half the area in the hands of Jat tenants is held with occupancy rights, and this is especially the case in the villages belonging to the great Jat family of Kuchesar in Bulandshahr.

Jat sub-divisions.

The Jats of this district are divided among no less than 92 clans, many of which are identical in name with those of the Rajputs. This classification is of little importance, except possibly from an ethnographical aspect. There are, however, two main divisions of Jat which need mention. These are known as the Heles and Dhes, corresponding to the Pachhades and Deswales of Rohilkhand and Dehli. The Heles are by far the most numerous in this district, and are found in every pargana. The Dhes occupy several villages in the neighbourhood of Babugarh and Hapur; in the Sardhana tahsíl they hold

* Settlement Report, p. 10. | † Settlement Report, p. 12.

Chabariya, and in the Meerut tahsíl Zainpur and other villages in its neighbourhood. These two classes do not intermarry. The Heles profess a great contempt for the Dhes, who appear to be a later colony. The Dhes, too, are for the most part followers of Nanak Shah, and call themselves Sikhs, although their usages do not in many ways correspond. The Heles state that they came here from Jaisalmer about 1100 years ago, and that they first settled in Chaprauli, Kutana and Baghpat. The account of the Kuchesar family and its history are given in the volume on the Bulandshahr district, to which they properly belong.

Brahmans.

Brahmans are very numerous in this district, as in every portion of the Jumna-Ganges Duáb. At the last census they numbered 120,815 persons, or nearly 12 per cent. of the total Hindu population. The great bulk of them belong to the Gaur subdivision, which numbers about 100,000 souls. The only other clans of Brahmans which number over 2,000 persons are the Saraswati, Sanadh and Kanaujia, although many others are also met with in small numbers. As landholders they are chiefly found in the Baghpat, Hapur and Meerut tahsíls. The area owned by Brahmans, amounting at the settlement to 55,384 acres, has not varied to any appreciable extent during the past thirty years, but the number of sharers has increased by over 3,000, and at the present time the average amount of land held by each sharer is less than six acres. A large amount of land is also held by Brahmans as tenants, about half of whom hold occupancy rights. As cultivators, however, they cannot be considered as belonging to the first rank. The Gaur Brahmans, who are distributed throughout the Meerut division, the western districts of Rohilkhand and the northern portion of the Agra division, are more numerous in Meerut than in any other district of the provinces. Their origin is lost in antiquity, but that the Gaurs have for many centuries been established in this part of India is to some extent proved by the existence of the Manpur copper-plate discovered near Bulandshahr. The name Gaur at once suggests a connection with the city of that name in Bengal; but though the Brahmans themselves almost invariably assert that they are the descendants of immigrants from the east,

nothing can be adduced in support of this contention. One of the leading Brahmans in the district is Rai Kedar Nath Bahadur, of Meerut, who was granted the title in 1894 for his long and faithful services rendered to the State. His father, Pandit Bhola Nath, served in the commissariat department, while several of his relations have held posts of distinction in these provinces.

Next come the Rajputs, numbering in all 79,313 persons or nearly seven per cent. of the Hindu population. These Rajputs are subdivided into large number of clans of which the most important are the Chauhans, Gahlots, Panwars, Tomars, Jadons, Pundirs and Bargujars. The Chauhans numbered 18,674 persons, but this includes a number of spurious Rajputs akin to the inferior Chauhans of Muzaffarnagar and Bijnor. The latter hold several villages in the Baghpat, Meerut and Gháziabad tahsíls, but they are not regarded as Kshattriyas and do not intermarry with the Rajput clans. The Chauhan properties are found principally in Sardhana, where the Hindu and Musalman representatives of this clan hold four villages apiece. The Gahlots number 10,091 persons, and are much more numerous in Meerut than anywhere else in the provinces. They have long been powerful in this district, and they trace the possession of their villages back to very early times, one of their ancient chiefs being Govind Rao, a general of Prithvi Raja, who is said to have resided at Dehra in this district. They hold a number of villages in Gháziabad tahsíl and a few in Hapur and Baghpat. The Tomars are very numerous in this district, amounting in all to 4,368 persons. They consider themselves to be the descendants of the Pandavas, and many of them claim kinship with the Tomar Rajas of Dehli. They still own over seventy villages in this district, chiefly in the Hapur, Gháziabad and Meerut tahsíls. There is a large colony of Tomars in pargana Puth, who own 32 villages with headquarters at Bhadsana. This place is said to have been founded by Bhadpal, who is traditionally the tenth Raja of the Tomar dynasty of Dehli. The Musalman members of this clan possess a few villages in Hapur and Baghpat.

Rajputs. **Chauhans.** **Gahlots.** **Tomars.**

The Rajputs are still the third largest landed proprietors in the district, although they have lost considerably within the last

Other Rajputs.

thirty years. At the last settlement they held 144,859 acres, but they have lost over 30,000 acres since 1865. The bulk of the land is held by those clans already referred to, but mention should also be made of the Bargujars and several others. The headquarters of the Bargujars is in Bulandshahr, but they also occupy the southern portion of this district. The chief of them is the Sabitkhani family of Pilkhua, but their influence ended with Daulat Rao Singh, whose estates were sold by auction in 1815. The Panwars, who numbered 5,616 persons at the last census, held five villages in Sardhana and one in Baghpat. The Pundirs, who are much more numerous than in the northern districts of this division, hold a fair amount of land in Sardhana. The Dors have greatly fallen from their former high state. At one time they are said to have held the whole of the land between Koil and Meerut, and their leader, Hardatta, appears to have been a person of considerable eminence. He is said to have held Baran at the time of the invasion of Mahmud of Gházni, and also to have built the fort of Meerut. The Dor supremacy, however, seems to have waned from the time of the Musalman invasion. They were expelled from their possessions in Bulandshahr by the Bargujars and in Meerut by the Gahlots, who ejected them from pargana Dasna. They still hold a few villages in the Hapur tahsíl. Besides the clans already mentioned, reference may be made to the Jadubansis, who, are more numerous here than in any other district of the provinces and are chiefly found in Sardhana; the Kachhwahas, who hold six villages in Sardhana and three in Baghpat; the Parihars, Rathors, Surajbansis and Bachhals, all of whom hold small landed estates.

Bargujars.

Panwars.

Pundirs.

Dors.

Rajput cultivators.

As tenants the Rajputs at the last settlement held 60,759 acres, of which somewhat less than half was held with occupancy rights. Mr. Gillan writes: "The Rajputs seem to me to vary greatly. They are strong in Sardhana, both in numbers and in physique, big fine men, who really work hard and generally prosper and whose only complaint is that their womenfolk cannot work in the fields. In Dasna, on the other hand, it may be fancy, but they appear to me much inferior in physique, but they have the reputation of being quarrelsome. Sometimes

as occupancy tenants, in Puth for example, they prefer letting out their holdings to cultivating them; but the holdings in that case soon pass to more energetic hands."* As everywhere, the Rajput cultivators seem to suffer considerably from the laws of their caste. Many of the more prosperous cultivating classes derive great benefit from the assistance given them by their women, and notably the Jats, almost all of whose womenfolk regularly work on the land.

The Banias numbered 59,115 persons at the last census. They chiefly belong to the great Agarwal subdivision; but there are also fair numbers of Rustogis and Barasenis. As might be expected, they form an important section of landholders in this district and are now the fourth largest proprietors. They have added 40,922 acres to their possessions within the last thirty years, and in 1900 they held 141,169 acres. Their property is distributed throughout the whole district, but they have comparatively few villages in the Baghpat tahsíl, their largest possessions being in Meerut and Mawana. One of the chief Bania families in this district is that of the Qanungos, whose ancestors from time immemorial have been bankers and zamindars. He owns 24 villages paying a revenue of Rs. 18,000. There are several other Bania families residing in Meerut who have acquired large landed possessions of recent years. **Banias.**

The Qanungo family belongs to the Agarwal subdivision. It was founded by one Jograj, who lived in the reign of Aurangzeb. The members of this family have for a long time held responsible positions under the Government and they possess a large number of villages. There are at present two branches of this family. One, known as the Qanungoyan, is now represented by Lala Murari Lal, Lala Banarsi Das, and Lala Jainti Parshad, who are all members of the Meerut municipal board. The other branch is known by the name of Pattharwala, a title earned by them about half a century ago. The present head of this branch of the family is Lala Munna Lal, who holds a number of villages in the Meerut tahsíl and elsewhere, amounting to 24 in all, and assessed at Rs. 18,000. He is the successor of Rai Krishna Sahai Bahadur, who received **Qanungo family.**

*Settlement Report, p. 10.

the title for his services on the District Board and as an honorary magistrate. The Agarwals are said to derive their name from the town of Agroha on the borders of Hariyana, whence they migrated to the Duáb after its capture by Muhammad bin Sam.

Bishnois. A large number of the Banias of this district belong to the Bishnoi sect, which largely prevails throughout the Meerut Division and in Muttra, Agra and Bijnor. The story goes that a Rathor Rajput, named Mohat, a resident of the village of Papersal in Nagor of Rajputana, was childless, and his wife was old. This Rajput was a pious man and a worshipper of Vishnu. He longed for offspring, and at length by the grace of the deity his aged wife became pregnant. A son was born on the eighth day of the dark half of Bhadon in 1508 Sambat or 1451 A.D. The child was named Vishnavi Parmeshwar, and when he grew up he declared himself an incarnation of the deity under the name of Jhamaji, and collected around him disciples from all castes, Brahmans, Rajputs, Banias and Jats. The number of his followers was largely increased by a famine, for the Banias were directed by him to distribute food to the starving poor on condition that they joined his sect. The Bishnois recognise all Hindu gods, but Vishnú is their supreme deity, and they worship either in temples consecrated to Vishnu or else in their own house. Bishnoism does not cause a confusion of caste: a Bishnoi Rajput only marries into the family of the Bishnoi Rajput, and a Bishnoi Bania into that of the Bishnoi Bania; but they all eat and drink together, and their grain must be parched by persons of the same sect. Marriages are celebrated exactly in accordance with Hindu rights. The great holidays are the "Amawas" of Bhadon, Kuar, Phagun and Chait; they make pilgrimages to Nagor, but also to other places sacred to Hindus. In the districts of Meerut, Moradabad and Bijnor some Bishnois adopt a Musalman name. The practice arose from the desire to conciliate the Muhammadans by whom they had been much oppressed. The custom, however, has to a large extent died out since the advent of British rule. They also sometimes imitate Musalmans in distributing alms at the tomb of a deceased person on the anniversary of his death.

This practice is also passing away in common with their other Muhammadan customs.

The Gujars are an important caste in this district, where they are much more numerous than in any other part of the provinces, although large numbers are to be found throughout the Meerut division. At the last census they numbered 57,769 persons. They are chiefly found in the khádir lands of the Jumna, Hindan and Ganges, where the rough, uncultivated wastes afford them good pasturage for their cattle. During the latter half of the 18th century and the beginning of the 19th there were several powerful Gujar chiefs in this district, but their possessions have been much reduced. They still hold a large amount of land, and in 1900 there were 8,390 Gujar sharers holding 8,829 acres, which shows a loss of 3,101 acres since 1870. The bulk of their land is situated in the Mawana tahsíl, but they also hold a number of villages in Gháziabad and the south of Baghpat, as well as several in Meerut, Hapur and Sardhana. As tenants they cultivated 83,164 acres in 1900, more than half of which they held with occupancy rights. Occupancy tenure is especially prevalent in the great Gujar estate of Landhaura. Gujars.

The Gujars vary greatly in character. Formerly they were all of unsettled habits, much given to cattle-lifting and a life of plunder. Of late years, however, they have been largely civilized by the introduction of the canal system, the change in the facilities thus afforded for improved cultivation bringing about a marked improvement in their character also. Mr. Gillan writes: "The Gujars are creatures of circumstance. Give them a canal and teach them the profits of agriculture, and they work their villages like Jats. Put them in a tract like the Loni khádir and they pay their revenue by stealing cattle and committing burglaries in Dehli. I believe it is still the case that in many Gujar communities the "malba" or village subscription is higher than among other castes, as their police expenses are still great; but taken all round, there is not a doubt that they are very much better cultivators than they used to be."* Their character.

* Settlement Report, p. 10.

Gujar families.

The chief Gujar family owning land in this district is that of Landhaura in Sahāranpur, the account of which is given in the Sahāranpur volume, to which it properly belongs. The chief Gujars in this district are those of Parichhatgarh, who sprang into prominence during the troublous times at the end of the 18th century. The founder of the family was one Rao Jit Singh, who was a notorious leader of banditti. He held command of all the ghats leading into Rohilkhand and reduced the art of levying blackmail to a science. Although his depredations were well known to the court of Dehli, no notice was taken of his conduct until he happened to kill a follower of one Partab Singh, a subahdar of the Deccan, who was a favourite of the mother of Ahmad Shah. Partab Singh marched with a force to chastise the Gujars, but was defeated and slain. Kumar Ali, the Kotwal of Dehli, next tried his hands against Jit Singh, but suffered the same fate, as did several others. Accordingly the Emperor summoned Jit Singh and other Gujar leaders to Dehli, and gave them authority over the country that they held, on condition that they should prevent others from thieving. Thus Dargahi Singh obtained Dadri and the neighbouring lands; Mangni Ram, the Jat leader of Kuchesar, received Siyana, Puth and Farida; and Jit Singh obtained possession of the eastern parganas of this district. He died without leaving any male issue and was succeeded by his nephew, Nain Singh, to whom Perron, the Mahratta Governor of Aligarh, gave over 300 villages in jagir. On the occupation of Meerut by the British, Nain Singh was permitted to hold his estate on the terms granted him by the Mahrattas, and subsequently this concession was made to him for his life.* Nain Singh first established himself at Parichhatgarh, and subsequently at Bahsuma. He gave much trouble to the authorities by harbouring offenders and engaging in a smuggling trade in salt.

History of Parichhatgarh.

Nain Singh died in 1818 and was succeeded by his son, Natha Singh. The latter made no claims to his father's *muqarrari*, but sued for the proprietary right in 183 villages under a zamindari *farmán* by right of inheritance, and for similar

*Board's Records, October 1st, 1804 and September 13th, 1805.

rights in 35½ villages by virtue of a lease at a fixed revenue in his own name. The validity of these *sanads* was acknowledged by Government,* as well as of certain decrees founded upon them. Unfortunately, at the time the decrees were given, the distinction between the different interests which attach to land, its produce and rent, was imperfectly understood, and under the general term zamindari proprietors of very different kinds were comprehended. The Government ruled that the *sanads* produced by Natha Singh could not be held "to vest the grantees with more than a hereditary right of collection and management, with the perquisites ordinarily attaching to such málguzárs, to which was subsequently added the advantages of a fixed contract. There seems not to be the slightest ground for supposing that it was in any degree intended to interfere with the rights which might be enjoyed by cultivators and málguzárs whom the grantee is enjoined to favour and protect. The *sanads* were granted in the disturbed reign of Ahmad Shah, and the tenure of the Raja would seem to have originated a short time before the deposition and death of that monarch, and it would have been peculiarly improper to allow any latitude of interpretation, and the character of Natha Singh appeared, unfortunately, to be such as to afford a strong ground of objection to his being admitted to engagements for the Government revenue. The objection prevailed, of course, with peculiar force in regard to mahâls subject to a full assessment." It was therefore resolved that, with the exception of the 35½ villages which Natha Singh had been allowed to hold under a lease at a fixed revenue, he should be excluded from the management of the villages held by his father in *muqarrari*, but should have an allowance of five per cent. on their revenue as a *nankar* allowance.

Natha Singh died on 15th August 1833, and the villages held by him escheated to Government. Through some misapprehension of the terms of the grant a payment, amounting to Rs. 9,000 a year, continued to be made by Government to Natha Singh's widows on account of these villages and the five per cent. allowance, till Sir H. M. Elliot took up the

* August 28th, 1833.

settlement of the district in 1836. He, with much show of reason, pointed out the absence of any authority or cause for this payment, and showed that the documents relied upon by Natha Singh in support of his claims, though accepted by the civil courts, were "impudent forgeries."* The *muqarrari* at the conquest comprised 274 villages, held at a fixed revenue of Rs. 50,000, which on their lapse were assessed at Rs. 1,87,068 for 1226 to 1230 Fasli (1818—23). In 1836 there were 136 of these villages with acknowledged proprietors, of which 20 were held by relatives of Nain Singh. In the remainder the claim to the proprietary right was disputed. Natha Singh left one daughter, Lad Kunwar, who married Khushal Singh of the Landhaura family, and thus the Meerut and Sahâranpur families became amalgamated.

The estates were managed by Rani Dhan Kunwar, the mother of Khushal Singh, who predeceased her in 1829, and after her death Rani Lal Kunwar continued in possession. She died in July, 1849, leaving Harbans Singh as her successor, who died in January, 1850, and was succeeded by his son, Raghubir Singh. He was a minor at his accession to the estate which was taken over by the Court of Wards. The property was released in December, 1867, and in April of the following year Raghubir Singh died, leaving a son, Jagat Prakash, who died shortly after. The estate then passed into the hands of Kamal Kunwar, mother of Raghubir Singh, and Dharm Kunwar, his widow. The former died in 1897, and Rani Dharm Kunwar is now in possession of the whole estate.

Tagas.

The Hindu Tagas numbered 41,230 persons at the last census, being found in this district in a far greater proportion than in any other part of the provinces. They are found in every district of this division, and in parts of Rohilkhand and Agra. Little is known of their early history, but with few exceptions all the Tagas in this district claim descent from the Gaur Brahmans. It seems probable, however, that they are identical with the Scythian Takhshas, but nothing is known of their first settlement in this district. They appear to have originally held the north-western parganas, but were

* Settlement Report of 1865—70, p. 208.

driven out by the Jats and Gujars, and are now chiefly found in the parganas to the south of the district. They hold a large amount of land and come second among the landed proprietors of the district, although they are a long way behind the Jats. In 1900 they were in possession of 194,000 acres or fourteen per cent. of the whole area held by 19,950 sharers. One of the chief Taga proprietors is Rai Debi Singh Bahadur of Asaura, who owns shares in 27 villages. He received his title in 1888 for his services rendered in connection with the improvement of agriculture. He was a member of the committee of management of the Government Demonstration Farm as long as it existed, and on its disestablishment maintained it at his own expense. Most of the Taga villages are situated in the Hapur and Gháziabad tahsíls, but they hold large areas in Baghpat, Mawana and Sardhana. Most of their land they cultivate themselves, but they are also found as tenants in over 40,000 acres, in more than half of which they have occupancy rights. Mr. Gillan writes of the Tagas that they "are an exceptionally strong caste in this district. They have not the stamina of the Jats, but make good average cultivators. They appear to deteriorate like the Jats when they embrace Islam, the only reason that I have heard of being that they then develop a propensity for slaughtering plough-cattle, and so living on their capital.*

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The Ahirs numbered 24,826 persons at the last census. They are found for the most part in the Baghpat tahsíl, where they hold 23 villages. They also hold a few in Mawana, Gháziabad and Meerut. In the *Ain-i-Akbari* the only mahals which are said to have Ahir zamindars are Nagína and Sardhana, but at the present time there is not a single Ahir landholder in the Sardhana tahsíl. The total area held by Ahirs in 1900 was 31,148 acres, or about 2 per cent. of the whole district. As with the other castes, the number of sharers has very largely increased and during the past thirty years the average amount of land held by each sharer has dropped from ten to six acres. They invariably cultivate the land themselves and are not found as tenants elsewhere to any great extent. As Ahirs.

* Settlement Report, p. 10.

in other districts, the Ahirs occupy a prominent place as cultivators. They are hard-working and industrious and frequently supplement their income from the land by cattle-breeding.

Bhangis. The remaining Hindu castes of the district are of less importance. The most numerous are the Bhangis or sweepers, who numbered 44,229 persons at the last census. They are usually employed as mere labourers and hold no land of their own. Reference has already been made to this caste in dealing with Christianity. Closely following on the Bhangis come the Kahars, numbering 41,087 persons. They are very numerous throughout the Meerut division and are mainly employed in agriculture and general labour. Next come the Koris, numbering 30,597 persons. They are found in large numbers throughout the Duáb and Rohilkhand. By profession they are weavers, but most of them derive a subsistence from cultivation. The Faqirs, numbering 25,221 persons, are more numerous in Meerut than in any other district. More than half of these are Jogis, while the bulk of the remainder are Goshains and Bairagis. Kumhars, who numbered 28,942 persons in 1901, are more numerous in Meerut than in any other district except those of the Gorakhpur division. A large number of them carry on their peculiar trade in pottery, as is evidenced from the fact that the number of persons engaged in the manufacture and supply of earthen and stoneware was, with their dependents, 23,074. The remainder are either engaged in agriculture or in miscellaneous labour. The pottery business is of considerable importance in this district, as has been already mentioned in the preceding chapter.

Koris.

Faqirs.

Kumhars.

Other Hindus. None of the remaining castes have as many as 20,000 representatives. The most numerous are the Gadariyas, Nais, Malis, Barhais and Lodhs, all of whom numbered over 10,000 persons at the last census. These castes call for no remark, being in no way different from their brethren, who are found in almost every district of the provinces. The Malis and Lodhs are good cultivators and generally pay a high rent. Closely allied to them are the Kachhis and Sainis, both of whom have over 5,000 members in this district. Another excellent cultivating caste are the Rawas, who are confined to the Meerut division

and Bijnor. Sonars are more numerous in Meerut than in any other district, but call for no special mention. The same applies to the Chhipis, or cotton printers, of whom there were 6,756 representatives in 1901. The Khatiks numbered 9,939 persons, but as they are to be found in every district of the provinces their presence is in no way peculiar. The only other castes that have more than 5,000 representatives are the Kayasths and Lohars. Of the remainder none are of any importance, for the district does not contain in any instance an unusually large proportion of any of the more uncommon or interesting castes that occur in the United Provinces.

Occupations.

Turning to the occupations of the people, as shown in the report of the last census, we find, as might be expected, that the great majority of the population is directly dependent on agriculture for its support. Meerut cannot be described as anything but a purely agricultural and pastoral country, as will be evident from the account of the manufactures and trade of the district given in the preceding chapter. The bulk of the trade is in grain, sugar and cotton, all of which are directly connected with the tillage of the land. Leather, the only other trade of any commercial importance, is similarly dependent on the breeding and grazing of cattle. The various occupations of the people are classified under a few main heads. Agriculture includes zamindars, tenants, labourers and the growers of special products, such as indigo, fruit and vegetables. The total number of persons with their dependents was 757,084, or over 49 per cent. of the population of the whole district. The proportion, of course, would be much higher if we exclude the urban population which is for the most part unconnected with agriculture. Pasture, which includes the breeders of cattle, horses, sheep and goats, as well as dealers and herdsmen, was followed by 18,238 persons, or somewhat over one per cent. Government servants with their dependents—a class which includes the Civil Service of the State, those employed in local administration and the army—gives with their dependents a total of 21,979 persons. Those engaged in personal, household and sanitary services, such as domestic servants, barbers, washermen, water-carriers, sweepers and scavengers, numbered

Agriculture.

in all 16,075 persons, or over ten per cent. of the total population. The number of those employed in unskilled labour, other than agriculture, was 172,680 persons, including dependents of both sexes, or over eleven per cent. of the whole. Those with no means of subsistence in the form of any actual occupation numbered 34,333 persons, a higher figure than in any other districts of the provinces. This class includes pensioners, prisoners and mendicants, as well as a small number of those whose property consists of houses and investments without any landed estates. The members of the learned and artistic professions, including those who derive a living from religion, education, medicine, law, literature and the like, numbered in all 36,288 persons, Meerut being in this respect far ahead of all the other districts, chiefly owing to the large number of priests and ministers of the various religions who, with their dependents, amounted to no less than 23,067 persons.

The trading community.

There remain two great classes of occupations, which represent the commercial community. The first comprises all those engaged in the preparation and supply of material substances; and the second those engaged in commerce, transport and storage. The total number of persons engaged under the former class amounted in 1901 to 305,091 persons, or nearly 20 per cent. of the whole population. Of these, 83,233 come under the head of food, drink and stimulants, and 83,926 under textile fabrics and dress. Of the latter more than half are cotton-weavers, who with their dependents are more numerous in Meerut than in any other district of the province. The total number of persons engaged in commerce, transport and storage was 31,844 persons, or over two per cent. of the whole. Further details with regard to the occupations of the people will be found in the various tahsíl articles at the end of this volume, while for a fuller account reference must be made to the census report.

The villages.

The number of occupied houses in the district in 1901 was 258,694, giving an average of 5·95 persons to each house. In 1881 the average was 8·73; but it must be remembered that the average number of houses to the square mile has increased during the past twenty years from 63·16 to 109·52, or much more rapidly than the population. Similar changes have been observed

in all the districts of the Meerut division. This is largely due to a change in the general aspect of the villages of the district. The ordinary Meerut village is like the district, square and flat, with purely conventional boundaries, and the main site in the centre. In some parganas, as Chaprauli, Barnawa and Sardhana, large villages are the rule, while in Meerut itself there is a greater subdivision. The typical village contains about 2,000 inhabitants and 2,000 *bíghas*, generally in the shape of an irregular square. In the troublous time that preceded the British rule the houses were closely packed together into a central site, the outer walls generally adjoining, so that the villages often presented the appearance of a walled and fortified enclosure; as for instance, Abdullapur near Meerut and Baleni on the Hindan. To the present day this is the general aspect of the main sites of many of the villages, and especially in those parganas where Jats predominate. For the same reason many of the villages are located on rising ground, notably as at Parichhatgarh, which is generally known as the Qila or fort; but this is also due to the necessity of drainage, which was still more needed in the days when there were no cuts and channels to take off the water. Since the establishment of British rule and the greatly-increased security of property, a number of hamlets have sprung up in every part of the district, and most noticeably in the north. The result has been a great increase in the available space and consequently in the number of houses. The frequency with which we find villages of the same name distinguished as Khas, Khurd, Buzurg, Nagla and the like might lead one to imagine that hamlets were more common; but these smaller villages are in fact entirely separate communities. The only tract in which little clusters of houses may be seen is the Ganges khádir, where we find groves of huts round a big tree with a small circle of cultivation, beyond which lie grass plains and the marshes and backwaters of the old Ganges.

Habitations.

The habitations of the people in the villages are for the most part very rudely constructed. They are generally built of mud and roofed with straw. Four or five of such houses are usually to be found in a single enclosure; but the Gujars generally have fewer than the Jats and Ahirs. The lower castes

frequently live in straw huts called *raotis*, and in many villages a whole family lives in one such hut. Occasionally a great number of these are huddled together with a courtyard in the centre, which serves the same purpose as a *chaupal* among the higher castes. The large number of new masonry houses which have been built in the villages, principally by Banias and Jats, is significant of the increasing prosperity of those castes, and at the same time bears evidence of the fine crops and high prices which enabled many a man in this district during the famine year of 1897 to pay his ancestral debts or provide himself with a brick-built house. These houses are usually surrounded with a high brick wall, enclosing a courtyard and entered by a lofty doorway. On one side are stables and on the others the men's and women's apartments.

Condition of the proprietors.

Meerut has the reputation of being the most prosperous district, and this is probably fully justified at the present time. It must be remembered, however, that there has been an enormous increase in the number of co-sharers during the past thirty years, although possibly the figures do not accurately represent the whole state of the case. Mr. Gillan writes:* "It used to be the custom to have a family property held by many co-sharers recorded in the name of one representative, while to-day each sharer must have his name put down; but while an increase of fifty per cent. is incredible and must be explained to a large extent by differences in the system of record, it seems to be certain that shares are growing smaller, and when the average revenue per share is nineteen rupees this is a serious matter." On the whole, however, not only the large zamindars, but also as a rule the smaller proprietors in this district are fairly well off. Many of the larger communities hold land in several villages and have members of considerable wealth, although in such case the number of sharers of course is large; but apart from exceptionally large and flourishing villages the general standard of living seems fairly high. Frequently communities may be found which are thriftless or indolent, but such people occur everywhere, and in this district are rather the exception than the rule. The condition of villages depends as

* Settlement Report, p. 11.

much on the character of the proprietors as on the revenue. "The Jats have paid heavy assessments without flinching and would pay, I doubt not, by hook or by crook whatever was laid on them. I like the spirit in which, when the new assessment was declared to them in Baraut, they said they would balance the account by growing a little more sugar."*

Condition of the tenants. The condition of the tenants also is generally good. Occupancy tenants are everywhere well protected and their rents are easy and often very low. Where they form part of the proprietary body or are connected with it, they share its fortune and, in spite of the high rents, they cannot be treated badly. As with the proprietors, their condition of course varies with their character, as may be immediately observed in the differences between Jat and Gujar communities. There appears to have been a considerable improvement of late years, probably due in large measure to the growth of occupancy rights. In the settlement report of 1870 it was stated that most of the peasantry were never out of debt from the time they began life to their death. This was ascribed to the exorbitant rates of interest charged by the native money-lenders. Indebtedness undoubtedly is still very prevalent, but the ease with which the higher rents are now paid shows at least that the condition of the tenants has not deteriorated. Reference has already been made to the improved condition of the Chamars, and the same remarks apply generally to all the labouring classes. The great demand for general labour at the present time has brought about an increase of wages which probably more than compensates for the increase in the prices of food-grains.

Food of the people. The food of the people does not differ in the case of Meerut from that of the other districts of this division. The labourers usually take food twice a day, once in the morning and again in the evening. The chief articles of food of the poorer classes are parched maize, and *chupattis* of bajra, juar and barley, and wheat when it is cheap. To these may be added the inferior grains eaten by the lower castes, especially Kahars, such as *sanwak* and *pusai*, which grow spontaneously, and *mandwa*, a very cheap and somewhat unwholesome grain. The other classes eat similar

*Settlement Report, p. 12.

food, using more wheat, the better their circumstances, and vary their dishes by the addition of *dál* or split pulses. Among the higher and well-to-do middle classes the chief food is gram, rice and wheat seasoned with ghí and spices. Fish are eaten everywhere by the lower classes and also by Kayasths, Bengalis and Musalmans; but not by Brahmans, Jats, Gujars and Banias, whether Hindu or Jain. Vegetables are consumed to a large extent, especially cucumbers and melons, which are grown largely in the district. Potatoes also are a favourite vegetable, but are beyond the reach of the lowest classes. European vegetables are gaining ground and are found growing in the neighbourhood of the most larger towns. It was noted in 1871 that even in the remote Baghpat tahsíl no less than 55 acres of onions were grown, and the area has considerably increased since that date.

Customs.

Nor do the customs of the people of Meerut present any remarkable features. Everywhere we find among the lower castes the usual "panchayats" or local indigenous tribunals which decide private disputes, such as matters affecting caste, family custom, relationship and private quarrels. The membership is almost always hereditary, and, as a rule, new men are never admitted except when the hereditary members are notoriously unfitted for the duties. In the case of trades or professions we have the usual chaudhris. These were formerly appointed by Government, but this practice has long since disappeared. The people now choose their own chaudhris, and the post is usually hereditary. Frequently, however, in cases of great dissatisfaction the hereditary chaudhris are displaced and new ones elected. The chaudhris decide disputes arising in their own "biradari" or guild. In large bazárs there is generally a chief officer known as "chaukraiyat," who stands with regard to the shopkeepers in the same position as the chaudhri in relation to a trade. In the larger markets, too, the weighmen are important personages, and generally have as perquisite a pice on the rupee on all grains sold. In places where many Brahmans live, as in Meerut, they form themselves into parties called "tharas," each of which is presided over by a *sardár*, who performs the same duties as a chaudhri.

As in nearly all the other districts of the Duáb, the tenures of land here may be classed under zamíndári, perfect and imperfect pattidari and bhaiyachara—terms which are too well known to require any explanation. Sir H. M. Elliot in 1836 observed that certain tenures prevail among certain castes, owing to their peculiar propensities. Thus the Jats preferred bhaiyachara holdings; the Tagas either bhaiyachara or joint zamíndári; the Rajputs, Pathans and Saiyids, being too insolvent and proud to cultivate much themselves, inclined to pattidari tenures; while the Gujars scarcely ever had a pattidari division, and very seldom subdivided a zamíndári. At the last settlement it was observed that out of the whole cultivated area, excluding Government property and revenue-free holdings, no less than 681,430 acres or over 50 per cent. were held in bhaiyachara tenure; nearly 22 per cent. in imperfect pattidari; 12·5 per cent. in joint zamíndári, and the rest in single zamíndári and perfect pattidári in almost equal proportions. A noticeable feature of the district is the exceptional number of petty proprietors. The number of single and joint zamíndári mahals is only 975, held by 303 and 5,154 sharers, respectively. The pattidári and bhaiyachara mahals number 2,235, held at the time of settlement by no less than 137,442 sharers. Further, partitions often lead to the formation of small mahals which are classed as zamíndári because owned by one sharer or one family, though they in no way differ from the bhaiyachara mahal from which they have been separated.

Proprietary tenures.

The only real distinction in this district is between rent-collecting landlords and cultivating proprietary bodies. The former include the Rao of Kuchesar in Bulandshahr, the Rani of Landhaura, the Banias of Meerut, Hafiz Abdul Karim and the Nawabs of Sardhana, to all of whom reference has already been made in the account of the castes to which they belong. The Rao of Kuchesar has large holdings in the south-east of the district, including nearly the whole of pargana Puth. Mention may also be made of the Skinner family and the Dasna estate. The former are descended from General Skinner, and hold property in the south of the district, especially the Gházíabad tahsíl. Their headquarters are at Dehli and

Larger proprietors.

Bilaspur in Bulandshahr. The property is wholly managed by agents, to the ruin of both proprietor and tenant. The Dasna estate was formerly owned by Mr. Michel, an energetic and excellent landlord, who spent a great deal of money on his estate, but the property has now passed to the mortgagee, Mr. Jackson of Lucknow.

Cultivating communities. We have already mentioned the chief cultivating proprietary castes in the earlier part of this chapter. Almost all of these bodies trace their descent from distant periods: the *chaurasis*, or estates of 84 villages, may be said to exist in almost their pristine antiquity among the Rajput and Jat communities, and their sub-divisions into forty-two and twelve villages are still more frequent. There is a *chaurasi* of Chauhans in Dasna and Jalalabad, and a *bealisi* of the same clan in Puth. The Maheshwara Tagas have a *chaurasi* in Kithor, and the Gaur Tagas formerly held a similar estate in Baghpat; other Tagas possess a *chaurasi* in pargana Puth. The strength of the communities lies solely in their union, for the enormous increase in the number of shares would render subsistence very difficult were it not for the combination obtainable by joint management.

Village expenses. Besides the payment of the Government revenue demand the community has to meet several other charges of a less important nature. These village expenses, usually known as *malba*, vary with the character and caste of the proprietors and are generally collected on the same system as the revenue. In some communities only the málguzárs are liable to the impost, and in others the whole body of sharers or only tenants-at-will. It includes a number of various items, such as alms to faqirs and travellers, which generally come into the account of the village Bania, the lambardar's expenses in attending Government offices, fines, the repairs of buildings and the like.

Tenant holdings. Turning to the tenants we find a similar case of minute subdivision. The average size of the holdings now ranges from two to three acres, but one man frequently has many holdings in the same village under different proprietors. At the time of Mr. Forbes' settlement *khudkásht* holdings varied from five acres in Sardhana to an average of eight acres in Gháziabad, and occupancy holdings from one and three-quarter acres in Sardhana

to six and-a-quarter in tahsíl Mawana. At the time of the last settlement 301,961 acres were held by tenants-at-will, 266,660 acres by occupancy tenants and 4,770 acres by ex-proprietors. In the case of the Jats, Tagas and Gujars, larger areas are held with occupancy rights than otherwise; the reverse is chiefly the case with the Rajputs and the lower castes.

Rents.

Sir H. M. Elliot, writing in 1836, stated that "in this district *batai* or division of crops chiefly prevails, and if money rates are in existence they are formed merely by distributing the Government demand by a *bachh.*" In 1870 *batai* rates were rarely met with, for they had been largely converted into cash by Mr. Forbes. Grain-rents are still common in the Ganges khádir and vary from one-third to one-fourth of the produce. Such rents are usually applied to lands which have long been waste and are liable to damage from floods. After a field has been cultivated for several years, the rent is frequently commuted into a money rate. A few landholders even in the khádir and in precarious tracts insist on cash rents—a method which, unless combined with considerable latitude for remission, is not calculated to lead to much improvement in a backward tract. The grain-rented area at the last settlement was only 41,500 acres, of which 14,860 acres were held by occupancy tenants. It chiefly lies in the Mawana tahsíl. Except in the khádir, for which the rates have already been given, the proportion varies from one-half to one-third, according to the nature of the soil. Closely allied to *batai* rates are the cash rates known as *zabti*, for crops which cannot be divided. The averages of such rates are estimated at Rs. 12 per acre for sugar-cane, Rs. 6 for cotton, and Rs. 3 for juar grown as fodder.

Language

There are no peculiar dialects spoken in the district. The language in common use among the mass of the people is the ordinary Hindostani, a form of western Hindi with an intermixture of Persian and Arabic, the latter being more noticeable among the educated classes of the city of Meerut.

Printing Presses.

There are at the present time 29 printing presses in the district, of which all save one are at Meerut. This exception is the Roman Catholic press at Sardhana, where religious books are printed. Of the remainder four are in cantonments and 24 in

News-papers. Meerut city. The newspapers published at Meerut are four in number. "The Police News" is a weekly paper published in Urdu and printed at the Dar-ul-Alam Press. It contains miscellaneous news copied from other papers, extracts from the Government Gazette, and notes on police affairs and cases. The yearly subscription is Rs. 7. The Akhbár-i-Alam is another weekly Urdu publication of old standing, printed at the Dar-ul-Alam Press. It contains nothing except miscellaneous news culled from other papers, extracts from the Government Gazette and notices. The yearly subscription is Rs. 7-8-0. The Mukhbir-i-Hind is a cheaper weekly paper on the same lines as the Akhbár-i-Alam, the yearly subscription being Rs. 3. A more important paper is the Shahna-i-Hind, a weekly publication printed at the Shauqat-ul-Mataba Press. This has a larger circulation than the other local papers. In addition to the news gathered from elsewhere, it contains quotations and essays on Muhammadanism, comments on the Quran, notices and criticisms on provincial and local administration and the affairs of Native States.

Maga-zines. In addition to these newspapers there are a few magazines published periodically. Among them may be mentioned the Parwania, which publishes miscellaneous news and the poems of local poets; the Mazhar-uz-Zaarat, which deals with agriculture, and the Safir-i-Qaisar, which is mainly medical.

Societies. The societies of Meerut are not of great importance. The Meerut Association was founded in 1881 with the object of "helping in the formation of a healthy public opinion on all questions of importance and to promote by every legitimate means the political, social, intellectual and material advancement of the people." The association possesses a small library and consists of 22 members. It receives a grant of Rs. 120 per month from the municipality. The Devanagri Pracharni Sabha was established in 1882, in order to diffuse Devanagri education. The Sabha, which consists of 117 members, has started two schools for boys and girls. A small Theosophical Society was also inaugurated in 1882 and now has eleven members.

Educa-tion. The educational arrangements of the district are under the control of the District Board, which has a sub-committee for its administration. The direct management is in the hands of

Deputy Inspector of Schools, whose headquarters are at Meerut, under the supervision of the Education Department. The Deputy Inspector is at present assisted by two Sub-Deputy Inspectors. Before attempting to trace the progress of education by a comparison of the census returns of the last few decades, it may be stated generally that among the mass of the people there is no desire for learning. The Jats as a body are not only illiterate, but actually opposed to education, and in Jat villages thriving schools are very seldom to be found. As in most places, the greatest proportion of literate persons occurs among the Banias, but most schools have a fair sprinkling of Brahmans. It is perhaps true to say that the more a caste devotes itself to agriculture, the less it develops a taste for education. The Musalmans afford no exception to this rule, for they are mainly agriculturists and labourers.

History of education.

The first step towards inaugurating a regular system of village schools was taken in 1845, when instructions were issued for the collection of data as to the state of education in these provinces. The result of this inquiry was embodied in a report, and on this action was so far taken that a number of village schools were established in 1848. It was then found that the district contained 410 schools in all, of which 205 were Hindi, 164 Persian, 28 Sanskrit and 13 Arabic. The total number of pupils at that time was 3,798, of whom 873 were Muhammadans, 911 Brahmans, 117 Kayasths and 112 Rajputs. From this date the village schools rapidly increased in number. The pay of the school masters was also largely increased. In the village schools it now ranges from Rs. 6 to Rs. 15 according to grade, whereas in 1853 the average pay was only Rs. 2 or Rs. 3 a month. A list of all the schools in the district will be found in the appendix to this volume. This list does not include the numerous unaided indigenous schools, the number of which varies from year to year.

Literacy.

In 1872 the first attempt was made to register the literate population of the district. The results cannot be considered as altogether trustworthy, but they give us a fair idea of the state of education. At that time only 1·9 per cent. of the population was literate. The number of literate male Hindus was 20,618

and of Musalmans 3,329. The literate females were only seventeen in number and were all Hindus. Taking all religions, only 1·3 per cent. of the male children up to twelve were under instruction, 3·7 per cent. of the male population between twelve and twenty could read and write, and 4·9 per cent. of the population above twenty years of age were literate. At the last census of 1901 the total literate population was 48,061 persons or 3·1 per cent. Of this 1,817 were females. Of the literate males, 20,969 knew the Nagri character only, 15,108 the Persian only, and 5,684 both the Persian and Nagri scripts. The number of males literate in English was 5,644, a figure that was only exceeded in Lucknow and Allahabad. Of the females, 811 knew Hindi only, 458 Urdu only, 86 Urdu and Hindi, and 643 English. The number of literate Hindu males was 30,656 and of Musalmans 6,858. Of the females 597 were Hindus and 221 Musalmans.

Spread of education.

From these figures it will be seen that there has been a distinct, though small, spread of education during the last forty years. The average number of literate males for the whole province is 5·8 per cent. and in the Meerut district 5·6 per cent. In 1881 the figure was 4·5 and 5·5 per cent. respectively, from which it appears that though Meerut has improved, the improvement has not been proportionate to the general spread of education in these provinces. Female education, on the other hand, shows much more progress. The proportion has risen from ·16 per cent. in 1881 to ·25 per cent. at the last census, the present average for the whole provinces being ·24 per cent. The improvement among the Musalmans is more marked than in the case of the Hindus. Much is due to the attention paid to education by the Aryas, who, as observed above, are very numerous in the district. Mention has already been made of the schools supported by them.

Secondary education.

Whatever may be the state of primary education, there can be no doubt that higher education has made rapid strides. An English school was opened at Meerut in 1835, but this was closed in 1843, together with other institutions of a similar nature in other parts of the provinces. The tahsíli schools were started in 1856, and in 1865 an anglo-vernacular school was opened at Meerut, which was raised to the status of an inferior

zila school in 1867, and subsequently became a high school. The Normal school at Meerut for training teachers in the vernacular schools of the circle was opened in 1857 and restarted in 1858 after the mutiny. In 1892 the old project of founding a college at Meerut was carried into effect. The intermediate classes were opened in July 1892, and with the upper section of the Zila school formed the nucleus of the college. About two lakhs of rupees were subscribed by the large landholders and gentry of the Meerut division, which led to the opening of the B. A. classes in 1894. The college is maintained by the income from fees, the interest on donations and the Government grant of about Rs. 8,000 per annum. Besides the district high school, there is a Church Mission high school at Meerut, a very old institution, which had in 1901 as many as 215 students on its rolls. In addition to these there is the Dayanand Anglo-Vedic school founded in 1897, which has recently been raised to the status of a high school. The tahsíli middle schools are seven in number, one being situated at each of the tahsíl headquarters and one at Baraut, while at Meerut there is a well-managed municipal middle school with over 200 students. The cantonment anglo-vernacular school has over 200 pupils on its rolls, and there are also anglo-vernacular schools at Hapur and Gháziabad. The former is supported by the municipality, and the latter is a Church Mission school managed by the Dehli Branch of the Society for the Propagation of the Gospel. Some of the smaller municipalities formerly supported anglo-vernacular schools, but these have been abolished of late years, as the boards found that it was better and cheaper to maintain an English class in the tahsíli schools.

CHAPTER IV.

REVENUE AND ADMINISTRATION.

THE district of Meerut is in the charge of a magistrate and collector, subject to the control of the Commissioner of the Meerut division. He is usually assisted by a joint magistrate, a covenanted assistant magistrate and five deputy magistrates, each of whom is generally in charge of a tahsíl or subdivision. In addition to these, there is a cantonment magistrate, who also exercises the powers of a Small Cause Judge for civil suits occurring within cantonment limits. An assistant cantonment magistrate was appointed in April 1904. At the headquarters of each tahsíl is stationed a tahsíldar who is invested with third-class magisterial and second-class rent and revenue powers. Besides these, there is a bench of honorary magistrates in Meerut city, consisting of six members, four of whom exercise second-class and the remainder third-class magisterial powers. The bench ordinarily is invested with the powers of a magistrate of the second-class, but under certain circumstances it can dispose of first-class cases made over to it by the magistrate. Administration.

For the purposes of civil jurisdiction there is a District and Sessions Judge stationed at Meerut, who exercises civil jurisdiction over the whole district and also over the Sikandarabad tahsíl of Bulandshahr. Up to 1894 the whole of Bulandshahr was under his jurisdiction, but in that year a reallocation of the work was carried out and three tahsíls of Bulandshahr were transferred to the Aligarh judgeship. The Judge is assisted by the Subordinate Judge of Meerut and two munsifs; at the present time there are also two additional munsifs. The munsif of Meerut has civil jurisdiction over the Meerut, Hápur, Sardhana and Mawana tahsíls; and the munsif of Gháziabad over Gháziabad and Bághpat, as well as tahsíl Sikandarabad in Civil justice.

Bulandshahr. In 1895 village munsifs were first appointed in certain villages or groups of villages. Such village munsifs are now stationed at Asara, Kirthal, Lohari, Johri, Sujhra, Rataul and Bhagaut. Up to 1858 there was a munsifi at Hapur, but this was abolished in that year and amalgamated with Meerut. In 1861 the munsifi of Sardhana was transferred to Gháziabad.

Meerut is also the headquarters of the Commissioner of the Division, the superintendent of police and his assistant, the Civil Surgeon, the Executive Engineer for roads and buildings, the Executive Engineer for the Meerut Canal Division, the district Surveyor, Chaplain, and the assistant inspector of schools.

Military. The ordinary military force stationed at Meerut consists of a British cavalry regiment, two batteries Royal Horse Artillery, two batteries Royal Field Artillery, a British infantry battalion, a regiment of native cavalry, and one of native infantry. Meerut is the cold-weather headquarters of the Major-General commanding the Meerut district of the Bengal Command. There are also important offices of the Supply and Transport and the Military Works Departments, and a large medical staff of the Royal Army Medical Corps and the Indian Medical Service.

Subdivisional arrangement. The district in its present form is divided into six tahsíls and sixteen parganas. The Meerut tahsíl consists of the single pargana of Meerut. Tahsíl Mawana is made up of the two parganas of Hastinapur and Kithor, and comprises the north-eastern portion of the district. Sardhana, the northernmost subdivision, contains the two parganas of Sardhana and Barnawa. Baghpat tahsíl, which forms the western and north-western subdivision, contains four parganas known as Baghpat, Kutana, Baraut and Chaprauli. Gháziabad in the south-west is formed from the three parganas of Jalalabad, Dasna and Loni. Hapur, the remaining tahsíl, lies in the south-east of the district and comprises the four parganas of Hapur, Garhmuktesar, Sarawa and Puth. All of these tahsíls and parganas have been ascribed in separate articles at the end of this volume.

The district prior to British rule. The district in its present form is of comparatively recent origin. There have been such changes in Meerut that there is much difficulty in tracing out the boundaries of the district in

different years. In Akbar's day the parganas at present found in the Meerut district belonged to the subah or province of Dehli and, with the exception of the present Sardhana pargana, formed part of the Dehli sarkár or division. Sardhana lay in the sarkár of Saharanpur and, together with a considerable portion of the present district of Muzaffarnagar, formed a *dastur* or district of itself. Meerut was the headquarters of another *dastur*, containing the parganas of Kithor, Hastinapur, Sarawa, Hapur, Garhmuktesar, Meerut, Jalalabad and Barnawa. The Puth pargana formed part of the Baran *dastur*; while the present parganas of Loni, Dasna, Baghpat, Baraut, Kutana and Chaprauli belonged to *dastur* Dehli. Under the Mahrattas, Meerut formed portion of the Saharanpur or Baoni division, which included 52 parganas and was conquered by the British in 1803.

At the conquest.

A month after the battle of Laswari, on the 4th December, 1803, Sindhia signed the treaty of Surji Anjangaon, by which he ceded to the British the whole of his possessions lying between the Jumna and the Ganges. The conquered territory was distributed into three parts and divided into the districts of Etawah, Aligarh and Moradabad. Mr. Leycester, Collector of Moradabad, received charge of the upper Duáb, comprising Saharanpur, Muzaffarnagar and the parganas in the neighbourhood of Hapur and Meerut, altogether 53 in number, on the 2nd October, 1803; and on the 28th of the same month the three Collectors met at Koil and fixed the boundaries of their several charges. This arrangement lasted until September in the following year, when the Duáb was detached from Moradabad and formed into a separate district under the name of Saharanpur. The boundaries were described as the Ganges on the east, the Jumna on the west, the hills of Srinagar on the north, and the Aligarh district on the south. Between 1804 and 1806 the parganas of Baghpat, Loni, Dasna, Sarawa, Jalalabad, Chaprauli and Dadri were placed in the charge of the Resident at Dehli, but was subsequently attached to the southern division of Saharanpur, with a Collector resident at Meerut, while the revenue affairs of the northern division were administered by a Collector with headquarters at Saharanpur.

Formation of Meerut district.

This arrangement lasted till 1818 A.D. In that year the parganas forming the southern division of Saharanpur, together with the Aligarh parganas of Sikandarabad, Tilbegampur Adha, Dankaur, Kasna, Baran, Malagarh, Agauta and Ahar-Malakpur, yielding a revenue of Rs. 2,51,682, were joined together to constitute the new district of Meerut. This arrangement lasted till 1824, when the Bulandshahr district was formed out of the Aligarh parganas, along with Thana Farida and Dadri. At the same time, Khatauli, Soron, Lalukheri, Jansath, Jauli, Shamli and Baghpat were transferred from Meerut to the new district of Muzaffarnagar.

Lapse of the jagirs.

Meerut then began to assume something of its present shape, but a large number of alterations were still to follow. The tahsíls then existing were Meerut, Parichhatgarh, Khatauli, Kandhla, Dasna, Hapur and Sikandarabad. In 1834 the jagir of Bala Bai of Gwalior lapsed to Government, and in 1835 the district contained seven tahsíls known as Meerut, Hastinapur, Kandhla, Baghpat, Dasna, Hapur and Puth-Siyana. In the following year the estates of the Begam Somru also lapsed, and the three parganas of Sardhana, Barnawa and Kutana were included in the Meerut district. Each of these parganas formed a separate tahsíl until 1840, when Barnawa was attached to Baraut and Hastinapur and Tarapur were added to Sardhana. Soon after the death of Begam Somru the parganas of Gangeru, Phugana, Titarwara, Bhuma and Sambalhera were transferred from Muzaffarnagar.

The district in 1840.

At the settlement under Regulation IX of 1833 the district contained the parganas of Meerut, Sardhana, Barnawa, Chaprauli, Kutana, Baraut, Baghpat, Jalalabad, Dasna, Loni, Hastinapur-Niloha, Bhuma, Sambalhera, Tarapur, Tappa-Gaura, Kandhla, Shikarpur, Puth-Siyana, Rucha and Budhana. Of these, Shikarpur, Sambalhera, Bhuma, Kandhla and Budhana were transferred to Muzaffarnagar in 1842. Rucha was included in pargana Chaprauli. Hastinapur-Niloha, also known as Niloha-Tarapur, corresponds with the present pargana of Hastinapur. Tappa-Gaura formed a part of Hapur, having been separated from it by Nain Singh, the Gujar chieftain, and is now included in Hapur. Tanda contained only twelve villages and was

absorbed in Chaprauli in 1834. The present pargana of Kithor was originally a tappa of Sarawa and was separated from it by Jit Singh of Parichhatgarh in the time of Najib-ud-daula. Tappa Ajrara, separated from Hapur by Fateh Ali Khan, and also known as Sarawa-Ajrara, was incorporated in Sarawa in 1842. The tahsíl arrangement was altered at the same time, the district being formed of six tahsíls, known as Meerut, Sardhana, Baraut, Baghpat, Hapur and Dasna. The Sardhana tahsíl contained the present parganas of Hastinapur and Sardhana; Baraut and Baghpat to the present Baghpat tahsíl with pargana Barnawa; Dasna corresponds to Ghaziabad; while Hapur only differs from its present form in the addition of Kithor.

Further changes, 1853.

In 1853 a number of other changes occurred, but most of these consisted in the redistribution of villages among the various parganas. The greatest change was the transfer of 110 villages of Loni and 14 of Dasna to Dehli; while 15 were given to Muzaffarnagar and seven were received in exchange. These changes are only of importance as showing the difficulty of attempting any comparison between the present statistics and those given for years previous to 1853. In the same year the existing tahsíl arrangement was first inaugurated, but the headquarters of the Ghaziabad tahsíl were at Muradnagar until 1859. In 1859 also, pargana Loni was restored to Meerut and then included 130 villages, of which 104 were a portion of the 110 given to Dehli in 1852, and 26 were new villages formerly belonging to the Dehli district. Several old subdivisions fell into disuse at the same time. Among these were the tappas of Dahana-Baksar, now called Gangadhar Bazár, and Garhmuktesar in the pargana of that name; the tappas of Gohra, Hajipur and Hapur in the Hapur pargana; and in Sarawa the tappas of Bhojpur, Kharkauda, Sarawa and Kithor. These mahals were in the *dastur* of Meerut, which was subordinate to the chakla of Sikandarabad, and the chakla itself was in the sarkar of Saharanpur and the subah of Dehli. Tappa Lawar and twelve others were included in pargana Meerut.

Fiscal history. Summary settlement of 1803.

It is almost impossible, owing to all these changes, to give a consecutive account of the early fiscal history of the district. The first settlement of the district was made immediately after

the annexation and was conducted in part by Colonel Ochterlony, the then Resident at Dehli, and also by Mr. W. Leycester of Moradabad. This settlement was entirely summary in character and was conducted on the system known as "amani," which allowed to the amíns or tahsíldars remuneration of ten per cent. on the collections.

1804. The second summary settlement was made in October 1804. The Collector was directed to order the amíns to examine the rent-rolls of each village for the two years preceding the conquest, and in all possible cases to take engagement from the actual proprietors at an easy revenue. Possession was to be upheld, and in a taluqa, if the subordinate proprietors could be discovered, they were to be admitted for engagement. All cesses were abolished and the revenue was assessed on the produce of the land only. The Collector was directed to appoint tahsildars, who were to receive 11½ per cent. on the collections, and to be responsible for the police of their respective charges. They were to give security equal to the largest instalment they had to collect and were to be assisted by the qanungos. Although the Government evidently desired to engage with the actual proprietors, it was found impossible to break up the great estates held on fixed rates, and consequently Raja Ramdayal Singh of Landhaura and Raja Nain Singh of Parichhatgarh, as well as Rao Ramdhan Singh of Kuchesar, were all confirmed in their holdings. The Dehli parganas at this settlement were again assessed by the Resident.

First triennial settlement, 1805. The first triennial settlement of the southern division of Saharanpur was made in 1805. The muqarraridars engaged at the same fixed rates as before, while in the rest of the district the assessment was made by the Collector himself. He went on tour through the district, visiting each pargana, and compared the reports of the actual produce of each mahal with those of the former years. It was found that the district had suffered very greatly from the revenue system of the Mahrattas and also from the repeated incursions of the Sikhs in the Jumna parganas. Taking into account the great difficulties that he had to contend with, the assessment of the Collector was wonderfully fair. Wherever any doubt occurred it was ruled in favour of the

landholder, but never to such an extent as to unduly lower the revenue. The assessment, on the whole, was high, for but little increase was attempted for many years, and in some cases it was found necessary to grant suspensions or remissions of the Government demand. About the middle of 1805 the control of the Delhi parganas was transferred to the Collector.

Second triennial settlement, 1808.

The second triennial settlement was made in 1808 and was at first intended to have been permanent. The Board of Directors, however, refused to sanction such permanency, and consequently this settlement continued in force till 1815. In 1811, when the new settlement should have been made, the Collector confined himself to the resettlement of the lapsed farms and of those few estates in which the proprietors refused to abide by the existing assessment under the option given them by Regulation X of 1807. This settlement appears to have been a very heavy one, and led to many transfers, especially in the tract between the Ganges and the Kali. The revenue for the whole of the southern division of Saharanpur was Rs. 11,28,243, but this gives us no idea of the actual demand for the present district at that time. The revenue during the period of this settlement was largely swelled by the lapse of the muqarrari of Raja Ramdayal Singh in 1813. A fuller account of this early settlement has been given in the Gazetteer of Muzaffarnagar.

Settlement of 1815.

In 1815 the first quinquennial settlement was made. The Meerut district then contained 31 parganas, of which 17 alone belonged to the district in its present form. The revenue of the Meerut parganas was fixed at Rs. 8,15,802 in the first year of the settlement, showing a decrease of Rs. 68,325 on the expiring demand. The remissions made were individually small except in Dadri and Dasna, the former being still a part of the Meerut district. In these two parganas they amounted to Rs. 66,735 in the first year and Rs. 40,233 in the last year of the settlement, and they would appear from the explanation of Mr. Shakespear, the assessing officer, to have occurred from the temporary circumstances of the unfavourable season during the formation of the settlement. The demand was made progressive for the whole district, so that in 1820 the revenue rose to

Rs. 8,66,509. Consequently at the end of the settlement the only parganas showing a decrease were Dadri, Dasna, Chaprauli and Sarawa. The Board were far from satisfied with this assessment, not being prepared for a general decrease, as the greater portion of the district might be considered to have voluntarily abided by the assessment of 1811. Some alterations were expected in Dadri in the newly-settled villages of Ajit Singh's muqarrari, but the Board never anticipated a decrease amounting to half the revenue. In Dasna the Collector excused the decrease on the ground of the pargana having suffered most severely from drought. He wrote "that the settlement was concluded in an unpropitious year, succeeding one that had been still worse, added to the ruinous over-assessment of 1811, which together had occasioned a great, but reasonable, diminution of the revenue; that villages offered for sale on account of arrears found no purchasers, and that farmers offered much more than they could collect and fell into balance." In consequence of this the Board were obliged, though unwillingly, to accept the arrangements made.

Dadri and Dasna.

Baghpat.

With regard to the temporary decrease of revenue in Baghpat, however, the Board used much stronger terms. The Collector stated that the settlement of this pargana was attended with greater difficulties than that of any other; "not so much from the sufferings occasioned by calamitous seasons, although many villages had strong and well-founded claims to indulgence, as because of the refractory spirit of the zamindars, who, being well convinced that no one would dare to take their villages in farm, were with difficulty brought into any terms but their own." The Board naturally enough objected to these reasons and remarked "that neither the number nor the amount of the abatements which had been allowed in this pargana would have called for any remark, although the settlement in general had disappointed their expectations, if this result was not ascribed by the Collector himself rather to the refractory disposition of the landholders than to any want of resources to meet the requisition of a considerable increase, and that such a reason for surrendering the just dues of Government was not only unsatisfactory in itself, but must tend to encourage and diffuse a

similar spirit from the example of successful opposition; that the same reasons having been assigned for the very large balance which had accrued on the first year's assessments to an amount of Rs. 40,055, the difficulties would progressively increase, and the realization of the assessments, however light, would be daily more precarious, if this avowed disposition to resist or evade the public dues should be thus submitted to instead of proper measures being adopted for the counteraction of it."

The second quinquennial settlement.

The first quinquennial assessment was extended for a second period of five years in every district, except Meerut, by orders of Government in 1818, but unfortunately we have no records of the assessment of this district till the first regular settlement under Regulation IX of 1833. During the intervening period a large portion of the district was still held by the Begam Somru of Sardhana, whose possession comprised the parganas of Sardhana, Baraut, Barnawa and Kutana in this district, as well as five parganas in the adjoining district of Muzaffarnagar and three parganas on the western side of the Jumna. The net demand of the Meerut parganas alone during the last twenty years of her rule averaged Rs. 5,86,650, including cesses, and her collections during the same period averaged Rs. 5,67,211. Mr. T. C. Plowden, in his settlement report of 1840, bears high testimony to the Begam's energy and ability for administration. The property lapsed to Government after the Begam's death in 1836 and Act XVII of 1836 was passed in order to bring the estates into line with the regulation districts.

The Sardhana jagir.

In this connection we may give a short sketch of the principal events referring to the fief of Sardhana so as to connect them with the local history of the portions of the estate that lie in this district. The founder was Walter Reinhard, a soldier of fortune, infamous for the part he took in the Patna massacre in 1763. In the year 1777 he obtained the pargana of Sardhana and the neighbouring lands as an assignment for the support of his battalions. He died there in 1778 and was succeeded by his widow, the Begam Somru. In 1781 she was baptized under the name of Johanna, and in 1792 she married M. Le Vaisseau, and added Nobilis to her name. Her husband committed suicide in 1795, and for a time she lost all power

district, as will be seen hereafter, and is in large measure due to the character of the landholders.

First regular settlement.

The account of the settlement under Regulation IX of 1833 falls into two parts. The parganas of Chaprauli, Baghpat, Loni and all those east of the Hindan, except Sardhana, were settled by Mr. Glyn and Sir H. M. Elliot from 1835 to 1837. The remainder of the district, comprising the Sardhana estate, was assessed by Mr. T. C. Plowden after the lapse of the jagir.

Sir H. M. Elliot.

The settlement conducted by Sir Henry Elliot was the first in which any attempt was made to test the revenue by average rates. Mr. Gillan writes:* "It is obvious, however, that the materials with which the Settlement Officer had to work were scanty. The district, it appears, was in a transition state in which the first signs of competition were appearing. Sir Henry Elliot foresaw that a change was coming; but when he made his assessment the old conditions still prevailed. He notes, for instance, that though the zamíndár had undoubtedly the right of ouster with regard to what we should now call occupancy tenants, he never enforced it, and was unlikely to do so "while so much land remained to be reclaimed, and there was no scope for competition;" rents were chiefly *batai*, and any money rates that existed were formed merely by distributing the Government demand by a *bachh;* in Baghpat out of 156 villages ninety-four were without patwaris. Still by inquiries among zamíndárs and patwaris, by the "conversion of average produce into the market values," by an examination of "every suit for rent that had ever been entertained in the Collector's office," and by comparison with the *jamas* of villages which were universally allowed to be fairly assessed, Sir Henry Elliot succeeded in ascertaining certain rates. In Chaprauli these ran as high as Rs. 8 wet, Rs. 4 dry, or as an all-round revenue incidence Rs. 3-7-0; but these rates were quite exceptional. In one circle in pargana Meerut he took Rs. 6-7-0 wet and Rs. 3-3-6 dry; but everywhere else the rates were Rs. 4 wet and Rs. 2 to Rs. 2-5-0 dry. How far these rates were actully used is uncertain, but they appear to have been applied as a test to

* Settlement Report, p. 15.

the old revenues. At the same time private inquiries were made from the zamíndárs, and when Sir Henry Elliot was satisfied that a village was assessed too high or too low, he visited it personally to find out if he would be warranted in raising or lowering the jama. The result was "an immediate increase of Rs. 18,000 and much more prospectively," but he believed the revenue was light, and gave as a proof the absence of farms and leases, the prevalence of which in neighbouring districts indicated severity in the assessments."

Prior to this settlement, division of crops generally prevailed throughout the district, and thus Sir H. M. Elliot found it difficult to discover a money rate which should form a fair guide. He collected the crop rates of all the villages in Nain Singh's muqarrari from the papers of the estate and from the qanúngos the prevailing rate in every village, and with these data and local inquiry to correct them he drew up an average rate *per pakka* bigha for irrigated and dry land, without specification of soil, for which he relied upon the landholders' own statements. The pargana rate thus formed was again tested by local inquiry and a comparison of the records of rent suits and an examination of the grain-dealers' books. The pargana rate was then distributed over the dry and irrigated cultivation of each village, and was lowered or raised according to the individual capacities of the villages. "Regard was had to circumstances which should have due weight in fixing assessment, such as the state of the village, whether deserted or in good repair; the prevalence of *pahi* cultivation; the amount of culturable waste; facility of land or water carriage; the past fiscal history; the nature of the soil; the caste of the cultivators; the unanimity or discord of the community; the depth of water; the density of the population; the previous alienation of rights and the vicinity of marts." Formation of rates.

The settlement of the Somru parganas followed immediately after that of the rest of the district. Mr. Plowden in his report gives a graphic description of their state during the Begam's management. Up to the death of the Begam a very large revenue was extracted from the estate, and at the same time arrears and transfers were almost unknown. The cultivators Mr. T. C. Plowden.

were assisted with or even compelled to accept *taqavi* advances whenever they needed them, and were, also, compelled to pay the highest revenue which their character as cultivators or the goodness or otherwise of the season permitted the tax-gatherers to collect. Unfortunately for the people, three years before the lapse of the estate, the Begam's heir abandoned the policy that had hitherto been so successful, and fixed a revenue for three years on an average somewhat in excess of the previous demand. The average demand during the 20 years of the Begam's management had been Rs. 5,49,157, with a balance of Rs. 19,439. This was increased to Rs. 6,79,730 in the first year of the new settlement, and rose to Rs. 6,91,388, exclusive of Rs. 23,047, the revenue of villages held under direct management, in the third year. The consequence may be easily imagined. The cultivators abandoned their holdings, 128 villages fell under direct management, and the ruin was rapidly increasing, when the death of the Begam and the lapse of her possessions to the British Government restored confidence to the people. The sudden increase in the revenue was not the only cause for the deteriorated state of these parganas: to this must be added "gross mismanagement in the fiscal and judicial administration by the systematic plunder and extortion indulged in by every underling in office, by the heavy miscellaneous taxes which annoyed and harassed the people and paralysed all commercial dealings, and the hopelessness of redress."

His system.

Mr. Plowden assessed the parganas of Sardhana, Baraut, Barnawa and Kutana at Rs. 5,44,000. The new assessment, though high when compared with the eastern parganas, was very moderate when compared with the revenue collected during the Begam's administration, and it must also be remembered that these parganas are the very best in the Meerut district. In fixing his rates* Mr. Plowden says he was guided chiefly by the rates already approved for Meerut district, but on the whole his rates were higher. His rates for the first class villages in Barnawa and second class in Sardhana were the same as for the first circle in pargana Meerut, *i.e.* Rs. 6-7-0 wet and Rs. 3-3-6 dry, and in the second circle of Barnawa they were

*Settlement Report, p. 16.

Rs. 4 wet and Rs. 2 dry. In the first circle of Sardhana they were Rs. 7-9-7 wet and Rs. 3-12-10 dry, and in Kutana and Baraut Rs. 6-14-0 and Rs. 3-7-0. His actual assessment seems to have been based in the first place on the conclusion, formed after much inquiry and investigation into accounts and opinions, that Rs. 5,40,000 would be a fair assessment for the whole estate—a sum which he distributed afterwards "on the same principle" on each pargana separately. He has been criticised for taking a revenue so nearly approaching a *jama* which he had condemned as oppressive; but there are two facts to be remembered: the first is that the canal had become available; the second is that he greatly equalized the revenue. Under the Begam the Jats had been very severely taxed, both because of their superior industry and because the Begam's diwan was a Taga. At every settlement the revenue of the Jats and other castes has been brought more and more to a common level, and Mr. Plowden certainly made a good beginning when he reduced the revenue in the first circle of Sardhana (held practically all by Jats) from Rs. 82,901 to Rs. 68,528. The incidence of his assessment was Rs. 2-13-7 per acre of cultivation when allowance was made for area lately abandoned, and this rate is, as it should be, between Rs. 2-7-3, the incidence of Sir Henry Elliot's assessment on pargana Meerut, and Rs. 3-1-7 on Chaprauli.

Working of the settlement.

With a very few exceptions the settlement appears to have worked very well. During the famine of 1860 revenue was remitted in Hapur to the extent of Rs. 2,552, but elsewhere there were practically no remissions and balances, and the transfers generally were not serious. The assessment appears to have been unequal in pargana Puth, where 43 per cent. of the area changed hands, but of this only five per cent. was by forced sale. This was probably due to the character of the settlement, which was fixed more with regard to the means of the persons from whom the engagements were taken than to the capabilities of individual villages and the circumstances of the cultivators. In Gháziabad there were a large number of transfers, but most of these were due to the confiscations for rebellion. Moreover most of the transfers in all the parganas were effected between

members of the same caste. The only important change took place in Hapur, where the old proprietors were replaced to the extent of 20 per cent. and mainly by money-lenders. The returns of the transfers during this settlement are deceptive, in that no less than 69 estates were confiscated owing to the action of their proprietors during the mutiny; of these 49 were sold by auction and 16 were given away in reward, while four were held for a time under direct management.

Settlement of 1860.

The second regular settlement of the district was effected by Mr. W. A. Forbes and Mr. J. S. Porter between the years 1865 and 1870. Mr. Porter assessed the northern tahsíls of Sardhana and Mawana, while the rest were settled by Mr. Forbes, who was also Collector. Unfortunately, Mr. Forbes had to leave the district on account of ill-health and was unable to write the final report. The pargana reports were very brief, and it is impossible to make any accurate comparison either between Mr. Forbes' settlement and that which preceded it or that which has now followed it. There had been a large increase both in irrigation and cultivation and a rise in prices and rent-rates; against these, however, we must set off a reduction in the Government demand from 70 per cent. of the assets to 50 per cent. It is clear, however, that rents had gone up and the estimate of the increase was then considered to be 23 per cent. The revenue was assessed at Rs. 21,80,491, showing an increase of 19·5 per cent. on the expiring demand and giving an incidence of Rs. 2-1-5 per cultivated acre as compared with the old incidence of Rs. 2-2-1. The rates observed by Mr. Forbes and Mr. Porter vary to a considerable extent. If we except a few villages in which free competition had been at work, we find that the highest general rate was Rs. 7-3-2 per acre, which prevailed in the north-west parganas. In nearly all the pargana reports we find Rs. 6 occasionally for wet lands, but by far the commonest rate is Rs. 4-12-9. The dry rate varied from Rs. 3-9-7 to Rs. 2-6-4 and Re. 1-3-2 for *bhur*; but the rate all round on dry land had probably gone up as much as the rate on wet, so that the increase altogether was about 20 per cent.

Mr. Forbes.

Mr. Forbes, in a memorandum attached to the settlement report, explains the method by which he fixed his rates. His

first care was to form soil and produce rates. This he accomplished by taking a number of villages in each pargana and estimating the produce of each kind of crop in each class of soil in well, tank and canal-irrigated land. From the outturn where rents were paid in kind was deducted the cultivator's share at the average proportion found to prevail in the pargana. The average price of the remainder was obtained from the grain-dealers' books for ten years tested by the prices current of the district, and thus a rent rate for each crop on each class of soil was obtained. Where rents were paid in cash a second series of rent-rates was found by consulting the village rent-roll and rent-suits and by local inquiry. The average of the two series of rates were then applied to each class of soil in each village, and an average revenue-rate for each tract was thus obtained. These served as a test of the correctness of the conclusions drawn from the personal village-to-village inquisition subsequently undertaken, when allowances were made for natural disabilities and advantages, such as nearness or remoteness from markets, irrigation, roads, the character of the cultivators, and all other similar matters affecting the revenue-paying power of the village. These rates, however, do not seem to have been used to any great extent, and when we find that he assessed Rs. 89,725 in Chaprauli, where the rates would have given Rs. 1,08,000, and on other hand Rs. 41,225 in Puth, where they indicated Rs. 33,607, it is certain that they were practically disregarded. Mr. Forbes relied on his own inquiries, which, by an accumulation of current rates and comparison of villages, enabled him to fix representative or "class-rates," as he calls them. There is no record of Mr. Forbes' classes or circles as they would now be termed, but he varied and combined his rates in order to suit the qualities of various combinations of soils in each village.

Working of the settlement.

The conclusion of the Board and of Government was that the settlement was moderate, but that the interests of the State had not been sacrificed. Mr. Porter's assessments were perhaps fuller than those of Mr. Forbes, chiefly because his parganas had a higher revenue to start with. Mr. Forbes, when he found it necessary to raise the demand largely, seldom took the full

percentage of the assets, and similarly seldom granted the full reduction in the case of villages which he found paying a demand which was higher than that warranted by the average rates. There was never any difficulty in collecting the revenue. In the statement of coercive processes issued in the 25 years preceding the last settlement, there was not a single sale of immoveable property. Only three mahâls with a revenue of Rs. 869 were farmed, and two paying Rs. 684 were attached, while in only six cases did the sale of moveable property occur. The number of private transfers on the other hand was large. This is perhaps not surprising in a district so fully developed as Meerut, where consequently the natural law of selection has full play. Mr. Forbes, writing in 1869, says: "I am not disposed to regret the increase of private sales; they are invariably of small holdings, and I think much benefit will be found to result from such transfers. Land I know to be rapidly increasing in value, and the transfers both by sale and mortgage are taking place between the agriculturists themselves, and not with the trading classes." The losses and gains of the various castes have already been dealt with in Chapter III.

The recent settlement.

The last settlement of the Meerut district was conducted by Mr. R. W. Gillan and completed in 1901. The new assessment took effect in all parganas of tahsíl Baghpat, except pargana Baghpat, and in all parganas of tahsíl Hapur, except pargana Hapur in 1898; in the Sardhana, Gháziabad and Mawana tahsíls and in pargana Hapur in 1899: and in tahsíl Meerut and pargana Baghpat in 1901. The settlement has been made for thirty years in each case, beginning from the 1st of July of the years above mentioned. The settlement was completed at a cost of Rs. 118 to the square mile, which was considerably greater than that of Bulandshahr, but about the same as in Muzaffarnagar.

Conditions of the new assessment.

The assessment was one which had for several reasons to be worked out as carefully as possible. In the first place the enhancement was certain to be large. The incidence of rents paid by tenants-at-will had increased no less than 89 per cent., and though it appeared that the rents at last settlement were not properly recorded, and that in fact, as the Settlement Officer

pointed out in paragraph 54 of his report, neither of the terms in the comparison could be accepted without modification, yet the increase in the value of land had certainly been almost forty per cent. At the same time the pressure of population had increased. There were no less than 75,937 separate proprietary holdings, and 153,668 proprietors paying on an average Rs. 19 in revenue. In addition there was a large area of occupancy land the rents of which it was known would require to be enhanced. All these circumstances called for a greater elaboration in the procedure of assessment than is generally found necessary.

The various steps in this procedure have been detailed by the Settlement Officer in paragraphs 57—67 of his final report, and to those paragraphs reference may be made. It is obvious from what has already been said that the methods of the previous assessment dispensed almost entirely with accurate soil areas and a soil classification had to be made *de novo*. Apart from the important distinction between irrigable and dry, this rested for the most part on the distinctions between loam, clay and sand, but in the majority of parganas it recognised also the superiority of the *bara* or land surrounding the village site. The nomenclature which had been adopted by the survey as a heritage from the preceding settlement was not altogether in accordance with popular usage, but the differences were slight and the matter was not of very great importance. The interpretation in practice of the names prescribed was determined by considering the real purpose of a soil classification in the procedure of assessment. This classification, it was recognised, was of use only as the basis of valuation, and areas therefore which, from the intrinsic quality of the soil, might have been classed together had to be distinguished if they were of different rental value. Thus an area of loam would be marked as *rihala* if it were *reh*-infected, or as *dakar* if it were subject to flooding, though its consistency might not justify its classification in a strict sense as clay; or again in low-lying tracts it would be found that the land round the *bara* was on a higher level and better than similar soil on the outskirts of a village, and in such a case it would be distinguished as *manjha*. The object was in each village to

distinguish every block of soil that required the application of a separate valuation rate, and by modifications of the kind just mentioned it was possible to attain this object with due regard to the propriety of the names employed. The circle classification again was not made to depend entirely on rental incidences: the disadvantages of that method had been shown in the Muzaffarnagar settlement, and attention was paid to all the conditions of irrigation, soil, etc., that affect the general quality of a village. Sometimes it happened that very distinct tracts were found in a pargana or tahsíl, such as the "bangar" and "upland khadir" in Loni or the low-lying areas in Dasna and Jalalabad. Tracts of this kind where they were found were made the basis of the circle classification, but ordinarily three circles or grades were found sufficient, the first being superior soil with ample irrigation, the third distinguished by large dry areas and generally a considerable percentage of *bhur*, while the second was of intermediate quality. It was found, however, that villages of similar quality occur as a rule in groups, and the result was much the same as that of a topographical classification.

Circle rates.

The most important and the most difficult part of the Settlement Officer's work was the fixing of circle or standard rates. The importance of these rates is sufficiently indicated by the fact that no less than 49 per cent. of the area in holdings was included in what is known as the "assumption area," *i.e.* for the most part proprietary cultivation. In addition, however, it has to be noted that in scarcely a single holding during the currency of the previous settlement had occupancy rentals been enhanced above the level of the rates fixed by Mr. Forbes. It was certain, therefore, that it would be impossible to accept the occupancy rental for purposes of assessment, and if the occupancy be added to the assumption area, the assets of no less than 73 per cent. of the whole depended on the Settlement Officer's valuation. At the same time the task of ascertaining fair rates was made difficult by the nature of the cash rental. The occupancy rents were out of date; the rents of tenants-at-will were high competition rents which could not be used as a basis of valuation at least without ascertaining how much on an average

was actually recovered, and the record of collections was extremely defective. The method adopted for the evasion of these difficulties was a minute analysis of the rental. In the first place inquiry was made village by village into the rates paid by every class of tenant, whether occupancy tenants of old standing, tenants who had recently acquired rights or had their rents enhanced, or by tenants-at-will, and in this way a considerable fund of information was acquired. Secondly, the recorded rents were classified as occupancy and non-occupancy, the occupancy being further sub-divided according to the time at which rights had been acquired. The lists were then examined holding by holding, and every holding of which the rent in the light of the information gained from inquiry and comparison appeared to be fair was separated. At the same time the proportionate values of the different soils had been ascertained by inquiry and from the rental incidences of holdings containing only a single soil. These proportions were applied to the rents of the selected holdings which were generally recorded in the lump, and the rents reduced in this way to soil rates from which it was easy to select standard rates. The rates adopted were not an arithmetical mean of the rates tabulated. The object of the whole procedure was to discover the rates which it was believed were latent in the rents, and the result justified the assumption on which the procedure was based. It was found as a matter of fact that the rates always grouped themselves round certain points, and the rates indicated in this way were adopted in nearly all cases without modification as the standard rates. These rates were on the whole 15 per cent. above the occupancy rental and 24 per cent. below the non-occupancy rental; and coincided with the rents paid by tenants who had recently acquired occupancy rights. Such rents were *primâ facie* not excessive, since their mere presence on the rent-roll showed that they had been paid for a considerable time, while it was assumed that they were adequate, or the landlord would not have allowed the tenant to gain the protection of occupancy rights.

The rates adopted were used first as a general standard for reference and comparison between different rentals; secondly, for the enhancement of occupancy rents; and lastly, for the

valuation of the assumption areas. The non-occupancy rental as a whole was excessive and the rent accepted was Rs. 19,93,760 or Rs. 1,05,000 less than the rent recorded. The occupancy rental on the other hand required to be largely enhanced. The total accepted occupancy rental was Rs. 13,88,020 against a recorded rental of Rs. 12,09,428, giving an enhancement of 14·77 per cent. This percentage is too low, as the figures include many rents that were not capable of enhancement. The increase on the rentals treated for purposes of assessment as inadequate was 23·01 per cent., while on the total of the enhancement of rent cases actually decided by the settlement courts it was 38·46 per cent. The accepted assets of the assumption area agreed very closely with the valuation at circle rates. The gross assets were put at Rs. 64,07,954—a sum which owing to the excess of the non-occupancy rental was considerably above the valuation at circle rates of Rs. 60,32,819. Considerable sums, however, were deducted as an allowance on proprietary cultivation and for other reasons, reducing the assets to Rs. 60,95,276. On these assets a revenue was assessed at 48·09 per cent. of Rs. 29,31,170. The assessments of Qasba Meerut (which were not included in the final report) and of the alluvial mahals being added, the total revised demand was Rs. 29,88,797, which was 33·34 per cent. above the previous demand, or 30·47 above the previous demand *plus* owner's rate. The incidence per acre of cultivation was Rs. 2·86 compared with Rs. 2·37 in Bulandshahr and Rs. 2·32 in Muzaffarnagar, while the incidence per 100 of the population was Rs. 200 in Muzaffarnagar, Rs. 208 in Bulandshahr and Rs. 213 in Meerut.

Police-stations. For the purposes of police administration the district is at present divided into thirty-three circles. The population of each of these at the time of the last census is shown in the appendix;* but it should be observed that two of them, Laliana and Bahukpur, have disappeared, as these stations were temporarily established as a punitive measure and the villages of their circles were restored to those thanas from which they had been taken. As a matter of fact, neither of them should have appeared in the census returns, for the Laliana station was

* Appendix, Table II.

abolished in 1889 and that of Bahukpur in 1891. The circles of the existing stations correspond in some cases with the boundaries of the parganas in which they lie, and in no case does any circle extend into a different tahsíl from that in which the police-station is situated. There are nine first class stations, six second class and 18 of the third class. In the Meerut tahsíl the stations are those of Meerut City, Sadr Bazár or cantonments, Lalkurti or Infantry Bazár, Kankar Khera and Baksár Khera in the neighbourhood of the city and cantonments; and the rural stations of Jani, Mau and Daurala. The whole area of the tahsíl is divided up into the circles of these stations. In the Sardhana tahsíl the Sardhana circle comprises the whole of the pargana of that name, while Barnawa is divided into the Daha and Binauli circles. The Baghpat tahsíl contains five police-stations. That at Baghpat has jurisdiction over part of the Baghpat, Kutana and Baraut parganas; the Baraut circle includes the rest of that pargana and part of Kutana; the remainder of Kutana belongs to the Chaprauli circle, which also comprises the whole of pargana Chaprauli; while the remainder of pargana Baghpat is divided between the Baleni and Khekrah circles. In the Gháziabad tahsíl the Loni pargana contains the stations at Gháziabad, Shahdara and Loni; Jalalabad is divided between Begamabad and Muradnagar; and Dasna between Pilkhua and Dhaulana. In tahsíl Hapur the headquarters police-station has jurisdiction over the whole of the pargana of that name, and the Kharkhauda circle comprises pargana Sarawa; pargana Garhmuktesar contains the stations of Garhmuktesar and Baksar, the circle of the latter extending into pargana Puth, the rest of which belongs to the Bahadurgarh circle. Lastly, in the Mawana tahsíl there are the stations of Mawana and Bahsuma for pargana Hastinapur, and Kithor, Parichhatgarh and Khanpur for pargana Kithor. All of these places have been separately mentioned. The first class police-stations comprise those at each of the tahsíl headquarters except Mawana, and the Sadar Bazár, Baraut, Begamabad and Garhmuktesar thanas. Those of the second class at Mawana, Jani, Shahdara, Kharkhauda, Daurala and Parichhatgarh. The remainder are of the third class; but in addition to these there

are twelve fourth class stations or outposts usually manned by a head constable and four men. Each of these are attached to one of the regular stations. In 1902 the outposts at Bhur and Partabpur belonged to Meerut city; the Dragoon and Artillery Bazárs to the Sadr Bazár; Inchauli to Baksár Khera, and Dadri to Daurala, all in the Meerut tahsíl. The outposts at Jagaula and Dhurgal were attached to Gháziabad; those at Bahrambas and Upehra to Hapur; Kaili to Kharkhauda, and Nizampur to Kithor.

Police force. Details of the police force will be found in the table given in the appendix.* The figures do not include the mounted and armed police, a considerable body of whom is maintained at Meerut. The civil police in 1902 numbered 44 sub-inspectors, 72 head-constables, and 456 men, a force of 572 in all, which gives a proportion of one man to every 4·1 square miles and one to every 2,692 persons. Besides the regular police there are the municipal police of Meerut and the other eight municipalities, and notified areas, numbering 285 men in all; the town police of those places which are administered under Act XX of 1856, who make up a force of 154 men of all grades; the road patrols, numbering 150 men; and the village chaukidars distributed over the whole of the rural area and amounting to 2,117 in all. Thus the rural police stand in the proportion of one man to every 558 persons of the rural population and are apportioned among 2,362 villages.

Crime. Other tables shown in the appendix to this volume give the statistics of crime since 1896, and from these some idea can be gathered of the work of the police.† The district is a very large one and, as in all parts of the Duáb, the work of the criminal courts is far from light. The returns show that from 1893 to 1903 the average annual incidence of crime per 10,000 of the population was 9·79. In the matter of cognizable crime the average number of cases disposed of was 702 annually, involving the trial of 1,045 persons, and in 522 of these convictions were obtained, the proportion of persons convicted to persons tried being 73 per cent. These figures are considerably in excess of

*Appendix, Table XVII. | † Appendix, Tables VII and VIII.

those recorded between 1865 and 1873, but the difference appears to be due rather to the improved criminal administration than to an increased propensity of crime on the part of the population. In 1873 it was stated that "the cases of heinous crime in this district undetected are both many and heavy, and it would appear that there are few districts in these provinces where the administration in this respect bears such little fruit." Though there has no doubt been an improvement in this direction, it is still well known that the police in Meerut are subjected to peculiar temptations by reason of the wealth of the village communities. As everywhere the most common forms of crime are burglary and petty thefts, but at the same time crime of a more serious description is unusually prevalent. From 1891 to 1901 the average number of murder cases annually investigated was nearly 22, while robbery and dacoity together average over 43 cases yearly. From the returns given in the appendix it will be noticed that rioting and criminal trespass are very common, and this is only to be expected in a district where so large a proportion of the land is held by coparcenary communities. Another noticeable form of crime is cattle-theft for which the Gujar population of the Ganges and Jumna khadirs have always been notorious. As already mentioned in the preceding paragraph, it was at one time found necessary to maintain special police-stations at Laliana and Bahukpur for the purpose of keeping these turbulent people in check. The number of cases, too, under the preventive sections of the Criminal Procedure Code is very large, the figures for section 110 alone showing an annual average of about one hundred persons since 1896.

Infanticide.

The operations of the infanticide rules have not yet been wholly withdrawn from the district. Inquiries regarding the practice of female infanticide were first made in 1870, with the result that in April 1871 five villages inhabited by Hele Jats of the Burha and Tewat subdivisions were proclaimed. It was ascertained that the population numbered 819 souls, amongst whom there were 259 boys and 59 girls. These villages were all situated in pargana Hapur, and during the following year the rules worked well, so that it was not found necessary to institute any prosecution for evasion. In 1873 Mr.

Plowden presented an exhaustive report on the Jats, Ahirs and Gujars of the district, based on special inquiries directed to be taken during the preparation of the census of 1872. From this it would appear that he considered these three tribes to need further examination, while he pointed out certain villages in which it seemed advisable to introduce the rules for repression immediately. His successor was directed to review these statements and to make definite proposals for the introduction of the Act, but no orders issued till 1875. In that year 71 villages were proclaimed, and the persons affected were 12,469 Gujars, 863 Tewat and 85 Burha Jats. The majority of these villages were exempted in the succeeding years, and in 1891 only sixteen remained on the roll. In 1902 there were only nine proclaimed villages, of which four were in the Mawana tahsíl, three in Hapur and two in Gháziabad. Seven of them are inhabited by Gujars and the other two by Jats. None of these villages are noted as specially guilty, and several are likely to be exempted in the near future.

Jail. There is now only one jail in the district; situated at Meerut to the south-east of the civil lines. There was formerly a central jail here, but this was closed in 1886 on account of the extreme unhealthiness of the situation. The site was given by Government to the Meerut municipal board, who are endeavouring to convert it into a public garden to be known as the Victoria Park. The scheme has been delayed for want of funds; while the site is rather too far from the city to be well adapted to the intended purpose. Attached to the district jail there is a civil jail, into which there were 98 admissions in 1901, giving a daily average of nine persons, as against 553·65 convicted prisoners in daily residence in the criminal jail.

Excise. In the matter of excise administration the whole district is under the distillery system. The distillery at Meerut not only supplies this district, but also forms the main source of supply for Bulandshahr and Muzaffarnagar, nearly half of the liquor issued being exported elsewhere. The distillery contains 36 stills, of which about 25 are let permanently. A table is given in the appendix showing the receipts from the various exciseable

commodities, the consumption under each head, and the number of shops licensed, from the year 1890 onwards.* It will be observed that in 1902 there were 177 shops licensed in the district for the sale of country liquor. The amount consumed varies largely from year to year, and depends to a great extent on the character of the harvest. The figures speak for themselves; the wealth of the district is great, and a large revenue, averaging Rs. 1,69,200 since 1890, accrues from the distillation of country liquor. The increase of late years is large, for from 1862 to 1872 the average receipts were over Rs. 62,800. The consumption is naturally far greater in the city and cantonments of Meerut than elsewhere. The receipts from foreign liquors are small, but slowly increasing: the consumption of Rosa rum is gradually growing in popularity. The liquor known as *tári*, the fermented juice of the palm tree, is also consumed to a small extent. It forms a monopoly in the hands of a single contractor and the receipts from the contract for its collection and sale average about Rs. 1,125 annually.

Opium. No opium is manufactured in this district as the cultivation of the poppy is prohibited. The average receipts since 1890 from the sale of opium amount to Rs. 41,952, and the amount sold annually to nearly 80 maunds. The official vend of opium was abolished in 1900 and resulted in an immediate rise of license fees from Rs. 12,338 to Rs. 20,020. At the same time the retail price rose and the consumption remained practically stationary. There are now 47 shops licensed to sell opium, six new ones having been opened in 1902. The price varies, and appears to range from Rs. 26 to Rs. 50 per *sér*. The consumption of opium would seem to have increased enormously since the advent of British rule. In 1816 Mr. Colin Shakespear wrote: "I think that thirty *sérs* per mensem of opium will suffice for the consumption of the district. The opium now smuggled into the district from Begam Somru's country is much adulterated and sells at Rs. 5 to Rs. 7 per *sér*." In 1821 the Collector estimated the annual consumption of the district at five maunds only.

Drugs. The sale of hemp drugs is in the hands of a contractor who in 1901 agreed to pay Rs. 19,800 annually for the next three

* Appendix, Table XI.

years. There has been a very substantial increase in the receipts from drugs of late years. In 1862 the total was Rs. 8,305, of which Rs. 5,716 were paid in cantonments. In 1892 it had risen to Rs. 17,200, and in 1902 to Rs. 28,452. Gánja is never used and none is imported, but the average consumption of *charas* since 1892 is over 63 maunds, while *bhang* is also largely used. As the tax on *charas* is much lower in the neighbouring district of the Panjáb than in Meerut, there is naturally a good deal of smuggling carried on across the Jumna.

Taking the excise receipts as a whole we find a large and steady increase in this source of revenue. In 1855 the gross income was only Rs. 75,751. This rose to Rs. 82,279 in 1861, but since that date the figures have trebled. The district is a rich one, and the people sufficiently well-to-do to be able to afford luxuries, and perhaps nothing shows the growing prosperity more clearly. The average total receipts from 1892 to 1897 were Rs. 2,30,040; and from 1898 to 1902 they had again risen to an annual average of Rs. 2,69,314.

Registration.

The Registrar of Meerut is the District Judge. The registration circle is now confined to this district alone. From 1871, when Act VIII was introduced, Bulandshahr was united for this purpose with Meerut, and this arrangement continued in force till 1897, when the Bulandshahr offices were transferred to the registration district of Aligarh. There are now registration offices at Meerut and at each of the tahsíl headquarters, as well as in the Meerut cantonment, where the cantonment magistrate performs the duties of a sub-registrar. The work at the cantonment office is very light and the number of documents registered is generally insignificant. The average number of documents registered in the whole district from 1899 to 1903 was 10,852 annually, the total average receipts being Rs. 21,518 and the expenditure Rs. 7,735. In 1872, the first year in which the Act was in operation, the number of documents registered was 6,287, and since that time there has been a fairly constant increase. Of the total number of registrations for the above period, an average of 7,294 were compulsory and affected immovable property, and 1,789 of the same class were optional. The other registrations referred to moveable property,

wills and the like, and the total average aggregate value of the property transferred amounted to Rs. 43,01,316.

Stamps.

A table will be found in the appendix showing the annual receipts and charges in the case of stamps.* The table shows the receipts from non-judicial and court-fee stamps as well as total receipts from all sources since 1890. These figures sufficiently explain themselves and call for no further remark. It is noticeable, however, that there has been a very large increase of late years in the receipts from court-fee stamps, and this may be ascribed in some degree to the results of the introduction of the new Tenancy Bill. It is also deserving of notice that whereas the average receipts from 1862 to 1873 were Rs. 1,26,300, during the period from 1891 to 1903 they had increased to Rs. 3,28,300, and in the year 1901 they were close upon four lakhs.

Income-tax.

A table will also be found in the appendix relating to the collections of income-tax in this district.† The returns for the whole district are shown since 1890, as also are those for each tahsíl and for the city of Meerut. These, too, call for no comment. It is only to be expected that the city should be responsible for by far the largest proportion of the tax, and next in order comes the Gháziabad tahsíl. It will be noticed from the returns that on an average 3,910 persons pay a tax of Rs. 64,079 on incomes assessed at under Rs. 2,000. This gives an average tax for each person under this category of Rs. 16·3 ; and as it would appear from this that such incomes are on an average well under Rs. 1,000, it may be presumed that the new regulations will result in a very large diminution in the receipts under this head. In the case of the larger incomes, the city of Meerut naturally shows the highest proportion, the average amount of tax being Rs. 122, whereas the average for the whole district is only Rs. 91.

Post-office.

A list of all the post-offices in the district by tahsíls and parganas is given in the appendix. The head office is in Meerut cantonments, and thence the post is despatched daily for the offices in the interior by rail or by runners. There are sixteen imperial sub-offices, including those in Meerut city, the Sadr Bazár, and at the two railway stations. The others are located

* Appendix, Table XII. | † Appendix, Tables XIII and XIV.

at each of the tahsíl headquarters and at the pargana capitals of Baraut, Chaprauli, Garhmuktesar and Kutana, and also at Binauli, Begamabad and Babugarh. Dependent on these are 23 imperial branch offices. In addition to these, there are nine district offices which are managed by the District Board, making a total of 49 offices.

Telegraph. Meerut belongs to the Dehli subdivision of the Panjáb division of the Telegraphic Department. The first line of telegraph in the district was laid prior to the mutiny, and ran from Agra to Umballa. Branch lines were subsequently added from Gháziabad to Dehli and from Meerut to Mussoorie. There are now, in addition to the three in cantonments, telegraph offices in Meerut city, at the Kutcherry, and at Gháziabad, Baghpat, Baraut, Chaprauli, Kutana and Sardhana, as well as the railway stations at Meerut, Sardhana Road, Gháziabad, Begamabad and Muradnagar. There are also telegraph lines along the Ganges, Eastern Jumna and Anupshahr canals, but these, however, are only for the use of the canal officials.

Municipalities. Owing to the fact that in addition to the District Board there were till recently no fewer than nine municipalities in Meerut and seventeen towns administered under Act XX of 1856, local self-government occupies more than usual an important place in the administration of the district. The number of municipalities has hitherto been much larger than in any other district of the United Provinces, and although some of them are of small size their existence adds largely to the executive work. Besides Meerut itself, there were till 1904 municipalities at the tahsíl head-quarters of Hapur, Sardhana, Gháziabad, Mawana and Baghpat, and also in the towns of Baraut, Pilkhua and Shahdara. On the 1st of April, 1904, the last four of these were reduced to the position of notified areas under section 193 of Act I of 1900. They will now be managed by a committee of three or four persons, including the tahsildar as chairman. Separate accounts have been given of all these places and further details as to the income and expenditure of each municipality since 1891 will be found in the tables given in the appendix.* The tables referring to those towns which are no longer municipalities

*Appendix, Table XVI.

have been left untouched as, with the exception of octroi, there will be but little change in the main sources of income and expenditure.

Few of the Act XX towns are of any great size or importance, and indeed many of them in no ways differ from the large agricultural villages that form so marked a feature of this district. Seven of these towns, on the other hand, have a population of over 5,000 persons and in some cases they boast a considerable trade. In the Meerut tahsíl there are Lawar, Abdullahpur and Kankarkhera, the latter being united for the purpose of the Act with Baksar Khera. In the Baghpat tahsíl we have Khekra, Chaprauli, Kutana and Aminnagar. In tahsíl Gháziabad there are the towns of Faridnagar, Muradnagar, Dasna, Dhaulana, Loni and Farukhnagar. In tahsíl Hapur there is only Garhmuktesar; and in Mawana three—Parichhatgarh, Phalauda and Bahsuma. All of these places have been separately described and mention will be made in the various articles of the income and expenditure of each town. Act XX towns.

The District Board is constituted under Act XIV of 1883, in which year it took the place of the old district committee. The board consists of 25 members, of whom seven, including the chairman and the six subdivisional officers, hold their seats by virtue of their office, and eighteen are elected, three being returned from each tahsíl. The work of the District Board is of the usual multifarious character and calls for little remark. The income and expenditure since 1891 will be found in the table given in the appendix,* and the figures are sufficiently explanatory of themselves. The chief work of the board consists in the management of the educational arrangements of the district, the maintenance of the dispensaries and the medical institutions, the upkeep of the local roads, and many other matters such as ferries, arboriculture, the district dâk and the like, to which, with the exception of the dispensaries, reference has already been made in this and the foregoing chapters. District Board.

There are eight dispensaries in the district maintained by the District Board. These include the Sadr dispensary at Meerut Dispensaries.

* Appendix, Table XV.

and the branch hospital in Meerut city, both of which were established before the mutiny. Prior to 1856 there was only one dispensary in the interior of the district, at Hapur. In 1872 the dispensaries at Baghpat, Baraut and Garhmukte:ar were instituted by Government, and these are now under the charge of the District Board. In 1879 the Gháziabad dispensary was opened, followed in 1882 by that at Mawana. In addition to those maintained by the District Board there are two Government hospitals under the control of the Canal Department at Baraut and Bhola, instituted in 1891 and 1890 respectively. The Dufferin Hospital for women at Meerut was established in 1889, and is supported from locally raised funds and also by a Government grant. At Meerut, too, there is the usual police hospital. The private hospitals of the district comprise that at Sardhana, and the dispensary at Gháziabad belonging to the East Indian Railway. As illustrative of the work done by the Government and State-aided dispensaries it may be observed that in 1885 the number of out-patients treated was 93,240. This rose to 115,250 in 1895, while in 1902 there was a further increase of nearly 3,000 persons. All the District Board dispensaries, except the branch at Meerut city, admit in-patients; and the average number thus treated in the three years ending 1903 was 1,518. The medical charge of the district is in the hands of the Civil Surgeon. His staff consists of an assistant surgeon in charge of the Sadr dispensary and ten hospital assistants. Since the outbreak of plague in 1902 a surgeon has been specially deputed to the district for preventive work.

CHAPTER V.

HISTORY.

THE district is connected with the earliest traditions of the lunar race of the Hindus. Down to the time when the Vedas were composed, the Hindus or Aryas, as they called themselves, had not passed east of the Jumna. The great epic called the Mahabharat, however, shows the Hindus settled over a large part of India. Raja Hastin, twenty-sixth in descent from the moon, had founded the great city of Hastinapur, now represented by a small village in this district. His great-grandson, Samvarana, was expelled from Hastinapur by his cousins, the Panchalas; but Kuru, the son of Saṁvarana, from whom Kurukshetra near Thanesar in the Panjáb takes its name, recovered it. The forty-fourth descendant, Vichitravirya, had married the two daughters of the king of Kashi (Benares), and died childless; but his mother, Satyávati, bade her son, Vyása, marry his step-brother's widows. Their sons were Dhritarashtra and Pandu, while Vyasa had a third son, Vidura, by a slave-girl. Pandu became the king as his elder brother was blind and Vidura was not of pure descent. Though impotent owing to a curse, Pandu had two wives, and these bore him five sons, called the Pandavas, whose fathers are said to have been the deities Dharma, Váyu, Indra and the twin-sons of Aditya. Dhritarashtra succeeded Pandu, married the daughter of the king of Gandhara and had a hundred sons, who were called the Kauravas, the eldest being Duryodhana. The cousins were brought up together at Hastinapur, and Drona, the priest, instructed them in the use of arms in which the Pandavas excelled. He urged them all to conquer Drupada, king of Panchala, and while the Kauravas failed the Pandavas succeeded. Jealousies sprang up, and when Dhritarashtra named Yudhishthira, the eldest Pandava as his successor, the hatred of the Kauravas knew no bounds.

Legendary.

The Pandavas then left Hastinapur and proceeded to Váranávata, which has been identified with several places,* but an attempt was made on their lives there through the instigation of Duryodhana. After escaping they wandered about in the forests, but hearing of the approaching *swayamvara* of Draupadi, daughter of Drupada, they travelled to Kampil (near Farrukhabad). In the contest for the hand of Draupadi, Arjuna was successful, and she married the five brothers, who then returned to Hastinapur. A compromise was effected and the Pandavas received a tract of country west of the Jumna, where they founded Indra-prastha (old Dehli). Here they prospered, and Yudhishthira determined to publish their success by performing the royal sacrifice (*rajasuya*). The jealousy of Duryodhana increased, and he invited the Pandavas to Hastinapur and persuaded them to join in a gambling match in which they lost their kingdom, their own persons and their beloved wife, Draupadi. A second match took place, in which the losers undertook to depart in exile for thirteen years, and again the unfortunate Pandavas were the losers. When they demanded the return of their kingdom at the close of the period, it was refused and the great battle took place near Kurukshetra, lasting for eighteen days. After terrible slaughter on both sides in which Duryodhana fell, Yudhishthira was declared king at Hastinapur and celebrated the *aswamedha*. The last scene in the life of the Pandava shows them abandoning worldly affairs and passing out of the city they had ruled, proceeding as devotees to the great snow-clad Himálayas.

To the orthodox Hindus the story briefly outlined above is a literal history of their race. The great war is said to have taken place a few years before the commencement of the present epoch, called the Kali Yuga or iron age, which commenced on Friday, February 18th, B.C. 3102. Attempts have been made by European students to fix the time at which these events took place from the astronomical data given in the Mahabharata, and these point to the thirteenth or fourteenth century B.C.,

* *e.g.* Bulandshahr (*vide* A. S. N. I., II, 4); Barnawa in the Meerut district (*vide* C.A. S. R. XIV, 140); and Allahabad (*vide* Allahabad Gazetteer, 1st edition, p. 133).

though Bentley* suggests 575 B.C. The question has recently been examined by a Hindu, who suggests† that the Kali era began at the winter solstice in the end of 1177 B.C., and that the war took place about the end of 1194 B.C.

Hastinapur.

It has been said that Hastinapur in the Mawana tahsíl is believed to mark part of the side of the city of the epic, but no remains have been found here. Muzaffarnagar-Saini in the same tahsíl is said to have been the great gate of the city, but it is some sixteen miles from the village of Hastinapur. Other places for which a similar antiquity is claimed are Parichhatgarh in tahsíl Mawana, the fort in which is ascribed to Parikshit, grandson of Arjuna Pandava; Puth in tahsíl Hapur, the name of which is derived from Pushpavati, the favourite garden of the Hastinapur Rajas, and Raja Karan-ka-Khera. Karna was a step-brother of the three elder Pandavas, and was killed by Arjuna in the war. Garhmuktesar on the Ganges is said to have been a part of Hastinapur.

Asoka's pillar.

The earliest historical connection which can be made with the district is the erection of an Asoka pillar near Meerut, and even this is not free from doubt. On the ridge at Dehli now stands a pillar which, according to Shams-i-Siraj,‡ was removed from near the town of Meerut and set up in the Kushak Shikar or hunting palace. The site originally occupied by the pillar has not been identified. The remains of a Buddhist temple were found some years ago near the Jama Masjid, but no place in the district appears to have been mentioned by the Chinese pilgrims.

Raja Har Dat.

In the eleventh century part of the district was held by Har Dat, Raja of Baran or Bulandshahr, who had a fort at Meerut§ and another at Hapur, which has been interpreted as Harapur,‖ though there are other derivations. The fort at Loni in tahsíl Ghaziabad is said to date from the time of Prithvi Raj of Dehli in the last quarter of the twelfth century. Local tradition shows that in the eleventh century the north of the

* Hindu Astronomy, p. 67.

† Chronology of Ancient India, by Velandai Gopala Aiyer; Madras, 1901, p. 86.

‡ E. H. I., III, 353; C. A. S. R., I., 168; J. A. S. B., VI, 794.

§ E. H. I., II, 219.

‖ Growse, Bulandshahr, p. 41.

district was held by the Tagas. These were driven to the south and east by the Jats, who entered the district in the north-west and thence spread themselves over the parganas that they now occupy. To the south were the Meos and to the south-west the Dors, of whom the traditional leader was Raja Har Dat. The Dors were expelled by the Gahlots with the aid of the Meos.

The Musalmans.

The Musalmans next appear upon the scene. The first mention of Meerut is found in the works of Rashid-ud-din, who, quoting Al Biruni, a writer of the tenth century, refers to Meerut as being ten parasangs distant from Ahar and ten parasangs from Panipat.* We then hear of Meerut in connection with the invasion of Saiyid Salar Masaud, who is said to have captured the city in the first half of the eleventh century.† "The princes of Meerut had already heard that no one could hope to stand before Masaud; that in whatsoever direction he or his troops turned they gained the victory. So they were afraid and sent ambassadors with valuable presents to Masaud, acknowledging his supremacy and offering to be the servants of his slaves, in fact submitting entirely to him. Masaud was much pleased, and bestowing the kingdom of Meerut upon them proceeded with all his train to Kanauj." Firishta says that Mahmud, whilst on his ninth expedition, invaded Meerut (1017 A.D.) and exacted from Har Dat a large sum of money, but regarding this expedition there is such confusion amongst the authorities that it is very difficult to arrive at any distinct conclusion.‡ The first undoubted Musalman invasion is connected with the raid of Qutb-ud-din Aibak, the slave general of Muhammad-bin-Sam, in 1191 A.D. Qutb-ud-din marched from Kahram, "and when he arrived at Meerut, which is one of the celebrated forts of the country of Hind, for the strength of its foundations and superstructure, and its ditch which was as broad as the ocean and fathomless, an army joined him, sent by the dependent chiefs of the country." The fort was captured and a kotwal was appointed to take up his station in the fort, and all the idol temples were converted into mosques. A mosque built by the conqueror bears his name to the present day.§

* E. H. I., I, 62. | ‡ *Ibid*, II, 458.

† *Ibid*, II, 519. | § *Ibid*, II, 219, 297, 300.

In spite of its close proximity to Dehli, the references to this district in the Persian histories are but few and unimportant. It is worth noting that the sole remaining Persian inscription belonging to the reign of Sultan Ghias-ud-din Balban, who reigned from 1265 to 1287, is still to be seen on the walls of the mosque at Garhmuktesar. It simply records the fact that the building was erected by Balban in the year 682 Hijri or 1283 A.D. We also learn that in 1255 the fief of Meerut was conferred on Malik Kishli Ulugh Khan on the occasion of his visit to Karra to pay his respects to the Sultan Nasir-ud-din Mahmud.* This Ulugh Khan was afterwards known as Balban, and became the heir of his former master. We next read of the troubles caused by the turbulent Meos in the south of the district, and in 1389 the fort of Meerut was used as a state prison by Muhammad Shah for his rival, Abu Bakr, who died there."† **Balban.**

Meerut was one of the first places in the United Provinces to suffer under the invasion of Tímúr, whose autobiography and the *zafarnáma* of Yazdi give a graphic account of the march through the Duáb and the capture of Meerut in the end of 1398. Marching from Kaithal, Tímúr came to Pánipat, and thence by Kanhi-gazin to the Jumna, where he discovered on the opposite side the fort and town of Loni, then held by one Maimun on behalf of Sultan Mahmud.‡ He describes Loni as situated "in a duáb between two rivers, the one the Jumna and the other the Halin, the latter being a large canal which was cut from the river Kalini (Jumna) and brought to Firozabad and there connected with the Jumna by Sultan Firoz Shah." Here he confuses the history of the Western and Eastern Jumna canals. The garrison appear to have been Hindus attached to the faction of Mallu Khan, the Hindu minister of Mahmud Shah. Pasture being scant on the Dehli side of the river, the Mughals crossed the Jumna, whilst Maimun made preparations for resistance. Tímúr relates that a holy Sheikh came out of the town and represented that he had used his utmost endeavours to induce the people to surrender, but that they had remained obstinate. Tímúr accordingly ordered an assault, which was successful. "Many of the Rajputs placed their wives and children in their houses and **Tímúr.**

* E. H. I., II, 4. | † *Ibid*, IV, 25. | ‡ *Ibid*, III, 432, 495; IV, 34.

burned them; then they rushed to the battle and were killed." Tímúr goes on to relate how he gave orders for the safety of all Musalmans and the indiscriminate slaughter of all the Hindus in the town and fort. Hence he marched along the Jumna and took up his quarters opposite Dehli. This was the scene of the massacre of his prisoners. Tímúr relates that his principal officers represented that they had 100,000 prisoners in camp, and that in the event of all the forces being required to attack Dehli they would find it difficult to prevent assistance being given to the enemy by the prisoners; thereupon Tímúr ordered that all the prisoners should be massacred, and so much was this in consonance with the advice of his spiritual counsellors that we read of a holy maulvi, "who had never killed a sparrow in his life," slaying with his own hands fifteen Hindus who had been assigned to him as captives and as his portion of the spoil.

After the capture and sack of Dehli Tímúr encamped at Firozabad, and thence crossing the Jumna marched for six *kos* to Mudula, which may be identified with the village of Mandaula in pargana Loni. Then he marched five or six *kos* to the villages of Katah or Kanah, identifiable with the modern village of Katha in the Baghpat pargana. There he received Bahadur Nahir, Raja of Kutila (Hardwar), and his son, Kalnash (elsewhere called Mubarak Khan), and accepted of their presents and homage, but this availed them little when Tímúr attacked their country. From Katah Tímúr proceeded six *kos* to Baghpat and thence to Asar, which he describes as situated "in a part of the country called duáb." There he heard of the strength and importance of Meerut, then held by Ilyas Afghan and his son, Maula Mahammad Thaneswari, assisted by a body of *gabrs** under one Safi. Tímúr first sent a party offering terms to the place if the inhabitants showed due submission and obedience; but the ambassadors returned unsuccessful, with the reply "that Tarmsharin Khan, with a host beyond all number and compute, had assailed their fort, but had retired from it baffled." Enraged at this defiant reply, Tímúr started the same day with 10,000 picked horsemen, and halting but one night on the road accomplished the twenty *kos* from Asar and arrived at Meerut on the

* *i.e.* infidels.

29th Rabi-ul-akhir (7th January, 1399). He at once set his men to sap the foundations of the walls, which so dispirited the garrison that the assault was soon ordered. The Mughals with the aid of ladders and ropes mounted the walls, and entered the fort. They then spread themselves in the interior and captured the Afghán leaders. Safi, who had fought well, was killed, and the Mughals "put all *gabrs* and people of the place to death. Their wives and children were made prisoners and all their property was plundered." The wood used to prop up the mines was then set on fire and the fortifications of the city and the houses of the people were razed to the ground.* Tímúr's last act was to cause the prisoners to be flayed alive and to order the destruction of the public buildings. From Meerut one wing of the victorious army under Amír Jahán Sháh was despatched up the Jumna with orders "to take every fort, town and village he came to, and to put all the infidels of the country to the sword." A second division with the heavy baggage took the route by the Kárasu river,† whilst Tímúr himself proceeded towards the Ganges. The first day he marched to Mansura, a distance of six *kos*, most probably to be identified with the village of Mansuri beyond Inchauli on the Niloha road. He arrived the next day at Firozpur and went thence for fifteen *kos* to Tughlaqpur. I have identified the latter place with Tughlaqpur in the Muzaffarnagar district. Firozpur is described by Tímúr as lying on the banks of the Ganges where there was a ford, for a portion of his troops were able to cross the river close to the main camp. The position of the village of Firozpur Saifpur to the north of Bahsuma and on the right bank of the Burh Ganga both in name and position corresponds with the Firozpur of Tímúr. This, if admitted, will go to show that the recession of the Ganges from its old bed has taken place since 1400 A.D.‡ The onward course of the Mughal army is noticed in the Muzaffarnagar and Saharanpur volumes.

The later Pathans.

After the departure of Tímúr Meerut became the head-quarters of Sultan Nasir-ud-din Nusrat Shah in March, 1399. Here he remained till he was joined by a small force under Adil Khan, and then he proceeded to Dehli. The Mughals had

* E. H. I., III, 451, 506; V, 485.

† Probably the Kali Nadi, Kárasu meaning black river in Turki.

‡ Muzaffarnagar, p. 2.

laid waste the whole country, and famine and pestilence raged; but the district speedily recovered. We hear nothing of Meerut for a long time onwards: before the accession of Bahlol Lodi, the country from Sambhal to Dehli was held by Darya Khan Lodi, and Niamat-ullah refers to Loni as his western boundary. The district remained undisturbed during the rule of the Lodi Sultans, and after the battle of Panipat in 1526 it was held by Babar and Humayun, till the defeat of the latter by the Afghán, Sher Shah, in 1540. The latter occupied Dehli, but in 1542, while he was engaged in the siege of Kalinjar, where he met with his death, one Alam Khan Miana created a disturbance in the Duáb, and having raised the province of Meerut devastated the greater part of the neighbouring country.* Alam Khan was slain by Bhagwant, the slave of Khawas Khan, governor of Sirhind, whither he had gone with his Meerut levies on a plundering expedition. In spite of its proximity to the Imperial capital, the references to Meerut are very few: it was a favourite place of resort for the nobles of the court, who frequently enjoyed the pleasures of the chase in the Ganges khádir.

Mughal rule.

Reference has already been made in the preceding chapter to the administration of the district under Akbar and his successors. Meerut, which was a mint town for copper coin, was the head of a *dastur* in the Sarkar of Dehli, but this subdivision did not in any way correspond with the present district. Lying near the imperial residence, numerous pleasure-gardens and hunting-preserves were maintained by the sovereigns in pargana Loni, and to water the grounds of one of these, known as Ranap, the Eastern Jumna Canal was first designed. The district naturally suffered from the disorders that arose throughout Hindostan after the death of Aurangzeb, and it was during this period that Meerut, in common with the rest of the Duáb, was ravaged by Sikhs, Mahrattas and Rohillas, while the local chieftains, Gujars and Jats first began to establish their influence. The north of the district was under the sway of the great families of the Barha Saiyids, an account of whom is given in the Muzaffarnagar volume. There, too, will be found the history of the Sikh raids, which were frequently extended

* E. H. I., IV, 407.

as far south as Meerut itself. The general anarchy was enhanced by the invasion of Nadir Shah in 1738, which so enfeebled the central authority that the Rohillas threw off all pretence at allegiance, and, like the Mahrattas, Sikhs, Jats and wandering bands of Afghans, considered the Duáb as a fit object for spoliation.

From the death of Aurangzeb to the British conquest in 1803 the district, as indeed the whole Duáb, was in a state of permanent disorder. It was nominally under the rule of the Dehli Emperor, but the real rulers were the local chieftains. All along the Ganges and in the south-west corner the Gujars were practically supreme, as they refused to acknowledge the authority of any one but their leaders. In the south-east the Jats of Kuchesar, whose history has been given in the Bulandshahr volume, held the greater part of the Hapur tahsíl, while the north was under the sway of the great Saiyid families of Muzaffarnagar. To add to this confusion, the district was constantly subjected to the raids of the Sikhs from the north-west, the Mahrattas from the south, and the Rohillas from the east. In 1738 the Persian, Nadir Shah, captured Dehli, and this was followed by a complete state of anarchy in the neighbouring tracts. The imperial army was disorganized and the treasury was empty, so that the sovereigns of Dehli were unable to effect anything. Ahmad Shah succeeded to the throne in 1748, but the power was really in the hands of Ghazi-ud-din, the Wazir, who was succeeded by his nephew, Shahab-ud-din, who also assumed the name of Ghazi-ud-din, and who is remembered in this district as the founder of Ghaziuddinnagar or, as it is now called, Gháziabad. In 1756 Ahmad Shah Abdali again invaded Hindostan and sacked Dehli, but he left Ghazi-ud-din in possession of the office of Wazir, and this man, on the departure of the Afgháns, became once more supreme at Dehli. The Jats, Rohillas and the Nawáb Wazir of Oudh leagued together and made several attempts to relieve the country from the tyranny of Ghazi-ud-din; but the dread of his Mahratta allies deterred them from engaging in such a dangerous enterprise. The Mahrattas invaded the Duáb, passing through the district of Meerut, and drove Najib Khan back to his fort at Shukartar

Local history.

in Muzaffarnagar. The result of this success was that Shuja-ud-daula joined with the Rohillas, and the combined forces defeated the Mahrattas on the banks of the Ganges in 1759. Ghazi-ud-din, on hearing of the repulse of his Mahratta allies and the approach of the Afgháns, had caused the Emperor to be assassinated. His opponents thereupon installed Ali Gauhar as Emperor, under the title of Shah Alam, and Shuja-ud-daula and Najib Khan were urged to assist them in regaining Hindostan. On the other hand, Ghazi-ud-din roused the Jats of Bhartpur and again called in the Mahrattas, who occupied Dehli and drove in the Afgháns' posts along the Jumna. Towards the end of 1760, however, Ahmad Shah crossed the Jumna at Baghpat and completely routed the Mahrattas at Panipat, whereupon Najib Khan became the practical ruler of the Meerut district by taking charge of the tract known as the Bawani Mahal, which comprised the 52 parganas that now form Saharanpur, Muzaffarnagar, Meerut and the north of Bulandshahr. This tract had previously formed the jagir of Intizam-ud-daula, the uncle of Ghazi-ud-din. Najib Khan held his possessions with great difficulty. Nominally his jagir extended to the district of Agra; but Suraj Mal, the Jat leader, was too strong for him in the south and drove him northwards. Suraj Mal followed with a small force as far as Shahdara, and while hunting in that neighbourhood he was surprised by a party of Mughal horsemen, who killed the chieftain and all his attendants on the 29th or 30th of December 1763.* This exploit was followed by a pitched battle with the Jats, who were thoroughly routed and driven back into their own country. Najib Khan thus again possessed himself of all the Duáb and Dehli itself, but soon he was attacked by Jawahir Mal, the son of Suraj Mal, who was aided by the forces of Malhar Rao Holkar. The Rohilla leader fortified the city as well as he could, summoning the Rohillas and his levies from the Duáb to his assistance and also writing to Ahmad Shah at Kandahar. The Jats and Mahrattas then redoubled their attacks at Dehli, but drew off on the approach of the reinforcements in 1767. Three years later, Najib Khan died at Hapur and was succeeded by his son, Zabita Khan. The Rohilla army was then encamped near Farrukhabad, and the Bangash Pathans,

*J. R. A. S., 1903, p. 388.

seizing the opportunity, joined with the Mahrattas, and in 1771 induced Shah Alam to leave Allahabad and proceed to Dehli. Zabita Khan returned to oppose them and encamped at Shukartar, where he was entirely defeated by the Mahrattas and the Emperor's troops. Thus the Mahrattas became predominant in the Duáb, and the Rohillas were practically confined to their own country beyond the Ganges.

In 1778 Walter Reinhard, otherwise known as Somru or Sombre, was placed in charge of the country adjoining Zabita Khan's territory, and fixed his headquarters at Sardhana. In the following year the Sikhs entered the Duáb and laid the whole country waste. They were attacked in the beginning of 1780 by Mirza Shafi Khan, who after several ineffectual skirmishes and much desultory fighting, succeeded in bringing them to a decisive action under the walls of Meerut on the 15th of August. The Sikhs were defeated with the loss of their leader, Sahib Singh and 5,000 men, and retired across the Jumna, to the great relief of the inhabitants of Meerut and the district. Mirza Shafi undertook the settlement of the country and remitted the whole of the taxes that were due during the period of the Sikh invasion. Mirza Shafi became for a time the real ruler of Dehli, but in 1783 was assassinated by Muhammad Beg. His brother, Zain-ul-Abidin Khan, was then governor of Meerut and was ordered to give up his post. He at first refused to obey and prepared for resistance, but being invested in the town by Afrasyab Khan, he was compelled to surrender and the governorship was given to Qutb-ud-daula. During the fighting that followed the administration was in a state of the utmost disorder, with the exception of the fief of Sardhana. Mirza Shafi.

Reinhard had died in 1778 and the estate then passed into the hands of his widow, known to history as the Begam Somru. This remarkable woman was the daughter of one Asad Khan, a Musalman of Arab descent, who had settled in the town of Kutana. She was born about the year 1753, and after her marriage with Reinhard exercised all his rights and succeeded in raising herself to the actual enjoyment of all the powers derived from his political position. On the death of Reinhard her force numbered five battalions of infantry, a body Sardhana.

of irregular horse, and about 300 European officers and gunners, with forty cannon. These troops never distinguished themselves, but never lost an action till they were defeated by the British at Ajanta Ghat. In 1781 the Begam was baptized and received into the Roman Catholic Church under the name of Johanna. Her troops were then commanded by a German, named Paoli, who was assassinated by Muhammad Beg in 1783. Meanwhile in 1785 Zabita Khan died and was succeeded by his eldest son, Ghulam Qadir Khan, who dispossessed his uncle, Afzal Khan, and assumed an independent state, proclaiming himself ruler of the upper Duáb. In 1787 he marched down the district and encamped opposite Dehli, and after defeating the Mahratta force sent against him captured the citadel and the emperor. He then opened communications with the Begam, offering her not only an extension of her jagir, but even an equal share in the administration of affairs if she would support his authority. The Begam refused this offer and advanced with her troops towards Dehli, where she was welcomed as a supporter of the imperial cause. Ghulam Qadir demanded the dismissal of the Begam and her troops; and when this was not granted opened fire upon the palace. He failed, however, to make any impression and then marched down the Duáb to Aligarh. It was in this year that the celebrated George Thomas, whose history is given in the account of Muzaffarnagar, entered the Begam's service and took command of her troops, which formed the backbone of the imperial army. They greatly distinguished themselves at the siege of Gokulgarh in 1788, and rescued the emperor from the attack of Mansur Khan.

Ghulam Qadir.

It was to Meerut that Ghulam Qadir retreated when pursued by the Mahrattas after his outrage on Shah Alam. Rana Khan, the Mahratta leader, invested the town which was garrisoned by a strong force of Rohillas, who had remained faithful to their leader. The Mahrattas, not having any heavy artillery, were prevented from forming a regular siege and consequently blockaded the fort. All the efforts of Ghulam Qadir to animate his troops and drive away the assailants proved fruitless, and he determined to escape. Attended by 500

horse he rushed out of the fort and charged the enemy so vigorously that, though every effort was made to take him prisoner, he escaped with a large portion of his followers. But at length even these deserted him, so that soon he was left alone, and, to complete his misfortune, he fell into a well-run, and was there discovered in an insensible condition by a peasant who delivered him up to the Mahrattas. His captor was one Bhika Ram, who received in reward the village of Timkia in this district, which is still held revenue-free by his descendants.

George Thomas remained at Sardhana till 1792, when LeVaisseau, who commanded the Begam's artillery and had always been the rival and enemy of Thomas, succeeded in supplanting him in the Begam's confidence. Thomas thereupon resigned his employment and joined the Mahrattas, setting up for himself a kind of independent estate in his own jagir. After this the Begam married LeVaisseau, and instigated by her husband sought in every way to injure Thomas, and on one occasion was about to attack him, but was stopped by the mutiny of her troops and the tragic death of LeVaisseau. The former resulted in her expulsion from Sardhana, but she was soon restored by Thomas himself. The district was under the rule of the Mahrattas in 1795, although the Gujar Rajas, Ram Dayal and Nain Singh, had consolidated their power in the eastern parganas. Thomas.

The story of the Begam Somru belongs properly to the history of this district, and for this reason it is necessary to deal with it in more detail. From the time that Thomas joined her in 1787 she obtained great influence in the imperial councils; and endowed by nature with a masculine intrepidity and a correct judgment, she was able to hold her own country and preserve her authority unimpaired under the successive administrations of Najaf Khan, Mirza Shafi and Afrasyab Khan. When Scindia became supreme in 1785 he had added to her jagir several parganas to the west of the Jumna, and during his war with Jaipur he had entrusted the important station of Panipat to her charge. Her exploits at Dehli and at the capture of Meerut from Ghulam Qadir have already been mentioned. Reference, too, has been made to the supplanting of The Begam Somru.

Thomas and her marriage with LeVaisseau. In 1793, when she was planning an expedition against Thomas, there was in her service a native of Liege, only known by his nickname of Liegois, who had long been a friend of Thomas and now endeavoured to effect a reconciliation. This action incensed LeVaisseau, who managed to effect the Liegois' degradation. The soldiers, ever ready for mutiny, sided with Liegois and plotted the destruction of both the Begam and LeVaisseau, whom, owing to the privacy of the marriage, they merely regarded as her paramour. They invited Zafaryab Khan, a natural son of Reinhard, from Dehli and swore allegiance to him; and then in May 1795 marched to Sardhana. The Begam and her husband fled on their approach, intending to reach British territory, but they were overtaken. LeVaisseau, hearing the report of a pistol from the Begam's *palki* and being told that she was dead, shot himself. It had been said that the whole affair was a plot on the part of the Begam to rid herself of LeVaisseau, and that her attempted suicide was but a feint. Whether this is so, or whether she actually failed in her endeavour to end her life, is not known. Certainly when she was taken she was treated with no respect: she was stripped of all her property and tied to a gun, and would have perished from exposure and starvation but for the good offices of a faithful servant. She was released from her terrible position through the influence of M. Saleur, one of her officers, but was kept in confinement at Sardhana. Here she found means to communicate with George Thomas, and implored him to assist in her release, promising any sum that the Mahrattas would demand if she could be reinstated. On receipt of these letters, Thomas by an offer of £12,000, prevailed on Bápú Sindhia, the Mahratta governor of the Upper Duáb, to march towards Sardhana; and in the meantime Thomas himself intrigued with the mutineers, and finding a party amongst them favourable to the restoration advanced to within a few miles of Sardhana with his own troops. To assist him in his negotiations he sent a message proclaiming that he was come by order of the Mahratta chief to reinstate the Begam. This proceeding had the desired effect. A portion of

the troops mutinied, and confined Zafaryab Khan; but before Thomas could arrive he was again released. Thomas, ignorant of this change in affairs, advanced with a slender escort of only fifty horse, directing his infantry to follow. Zafaryab Khan, perceiving his opportunity, ordered an attack upon Thomas; but before this could be carried out, the infantry arrived, and the mutineers, thinking the whole Mahratta army was upon them, broke and fled. The Begam was then brought out from her confinement and restored to power, whilst Zafaryab Khan, stripped of all his property, was reconducted as a prisoner to Dehli, where he died in 1803, and was buried beside his father in the Agra graveyard.

The Begam paid a portion of the sum stipulated for her release to Bapu Sindhia and promised the remainder. With the aid of George Thomas she arranged her affairs once more and gave the command of the troops to M. Saleur, an old Frenchman who had been in the corps since its first formation. Thomas describes the Begam at this time as small in stature, but inclined to be plump. Her complexion was fair; her eyes were black, large, and animated. She adopted the Hindostani costume made of the most costly materials. She spoke both Persian and Urdu, and in her conversation was engaging, sensible and spirited. Her house was well built and furnished, partly in the European and partly in the Hindostani style; but she always followed the customs of the country and never appeared out of doors or in her public darbár unveiled. Her officers presented themselves in front of the place where she sat, which was separated from the public rooms by a screen, and here she gave audience and transacted business of all kinds. She frequently admitted to her table the higher ranks of European officers, but natives never came within the enclosure. On dinner being announced, twenty or thirty of her female attendants, most of whom were Christians, carried in the plates and dishes, and waited on the guests during the repast. The darker side of the Begam's character is shown by the story of the slave girl's murder. By some it is said that the girl's crime consisted in her having attracted the favourable notice of one of the Begam's husbands. Whatever may have been the offence, her

barbarous mistress visited it by causing the girl to be buried alive. The time chosen for the execution was the evening, the place the tent of the Begam, who caused her bed to be arranged immediately over the grave, occupied it until the morning to prevent any attempt to rescue the miserable girl beneath. By acts like this the Begam inspired such terror that she was never afterwards troubled with domestic dissensions. She augmented her troops to six battalions in 1797-98, and we next find them fighting on Sindhia's side against the English in 1802. Five battalions marched to the Deccan and one remained at Sardhana. At the battle of Assaye, the Sardhana troops, under M. Saleur, lost one battalion and four guns. After the fall of Dehli the Begam made submission to the British Government, and to the end of her life remained faithful to their interests. In 1825 she showed her loyalty by leading her troops in person to assist the British at Bhartpur. She died in the early part of 1836.

The British conquest.

From 1792 to the British conquest the Duáb was in the hands of the Mahrattas and was governed by DeBoigne who retired in 1795, and was succeeded by Perron. The latter administered the district with considerable success and managed to preserve peace till the war with the British in 1803. After the capture of the fort of Aligarh and the subsequent defeat of Bourquien by Lord Lake near Dehli, in the north-west corner of the Bulandshahr district on the 11th of September, 1803, the Mahratta territories in the Duáb were ceded to the British by the treaty with Scindia on the 30th of December. From Dehli Lord Lake proceeded southwards to Agra, but in the following year the district was again threatened by Holkar, who had retired from Muttra on the approach of the British. He crossed into the district at Baghpat, and thence proceeded to Sardhana and Shamli; but on being pursued by Lord Lake he retreated to Fatehgarh.

British rule.

The history of British administration in Meerut has already been given in the foregoing chapter. The authorities were greatly troubled at first by the raids of the Sikhs, an account of which will be found in the Muzaffarnagar volume. With these exceptions the peace of Meerut was only disturbed by the irruption of Amir Khan Pindari in 1805. This man, who had joined

with Holkar, crossed the Jumna in the Muttra district with the object of creating a diversion in the British rear. He passed up the Duáb by way of Aligarh and thence proceeded to Puth, and crossed the Ganges at Kamruddinnagar ghat, causing some disturbance in Rohilkhand. Driven thence by General Smith and Skinner's Horse, he re-entered the Duáb at the same point and marched south again to join Holkar at Bhartpur on the 21st of March, 1805, after an absence of six weeks. He was followed two days later by General Smith. Thenceforward the district remained undisturbed till the great sepoy revolt more than fifty years later. Up to 1818 Meerut was styled the southern subdivision of Sahâranpur, but in that year it was constituted a separate district as is recorded in Chapter IV.

The mutiny.

Meerut attained an unenviable notoriety in 1857, for it was here that the great mutiny first broke out, and the events which occurred in the city and cantonments were the immediate cause of the spread of rebellion throughout the north of India, although there can be no doubt that in many parts discontent and disaffection had long been rife. The account of the outbreak and the history of the disturbances and operations in this district is largely taken from the official reports of Mr. Fleetwood Williams, Commissioner of Meerut, and Major Williams, Commissioner of Military Police. The actual causes of the mutiny are a matter of imperial rather than local history; it is certain, however, that in the early part of 1857 there were disquieting rumours afloat in the bazárs of Meerut and among the native troops, especially those regarding the use of polluting grease in the preparation of the new cartridges about to be issued to the troops and the mixture of ground bones in the flour sold in the bazár, by which it was said that Government intended to destroy caste and the religion of the people.

The outbreak.

Early in April an emissary in the guise of a Hindu faqír, riding on an elephant and attended by a few horsemen and a number of native carriages, came into the city and was visited by several of the native troops. He was ordered to leave the station, but is said to have been for some time concealed in the lines of the 20th Native Infantry. After some consideration it was resolved to test the spirit of the men by ordering the troopers of the

3rd Bengal Cavalry to use the new cartridges. A trooper, by name Brijmohan, announced to his comrades that he had used them, and that all would have to do so. The result was that Brijmohan's house was set on fire on the 13th of April, and from this date incendiary fires became frequent. The 23rd of April was fixed for a parade of the 3rd Cavalry, and on the preceding day the troopers, both Hindu and Musalman, bound themselves by an oath not to use the cartridges when called out for exercise. The skirmishers of the regiment refused to take even the cartridges that they had been accustomed to use for years. These men were arrested and tried by court-martial, and on the 9th of May eighty of them were condemned to ten years' imprisonment and five men to five years. The prisoners were at once deprived of their arms and uniform and lodged in the new jail near the Suraj Kund under a guard of the 20th Native Infantry. It is said that their comrades first thought of trying the effect of an appeal to the legal authorities, and subsequently of a petition to Government; but, whether this be true or not, they resolved about noon on Sunday, the 10th May, to have recourse to arms. Between 5 and 6 P.M. the cry that the Europeans were coming to take possession of the magazines of the Native Infantry spread through the Sadr Bazár and the lines of the 20th Native Infantry. The men of the 20th at once took to their arms and the mutiny commenced. Colonel Finnis of the 11th, who had approached to pacify them, was cut down; the next victims were Captain Macdonald of the 20th, who tried to control them, and Mr. Tregear of the Educational Department, who had unfortunately gone to the lines. The remaining officers of both regiments were shot at and driven from their parade-grounds or were urged by their men to leave. The bad characters of the city and bazár were assembled before a shot had been fired, and armed with clubs, spears and swords and any other weapon that they could lay hands upon, collected in crowds in every lane and alley and at every outlet of the bazárs, whilst the residents of the wretched hamlets which had been allowed to spring up all round the bazár and between it and the city were to be seen similarly armed, pouring out to share in the plunder which they knew would soon commence.

All Christians and the European soldiers then in the bazár were at once savagely attacked by crowds headed, in many instances, by the police and cantonment peons in uniform. The officers who first hurried to report what was going on passed with difficulty through the crowds, and those who came later were attacked and murdered. Meantime a large party of the 3rd Cavalry rushed to the jail and released their comrades without the slightest opposition from the jail guard or the guard of the 20th Native Infantry. None of the other convicts were released by the troopers, nor were the persons or property of the European jailor and his family molested. The prisoners, to the number of 839, were let out by a mob of villagers who, emboldened by impunity, attacked, broke upon and set fire to the jail about midnight. The inmates of the old jail, 720 in number, were released about an hour after the outbreak by a small band of sepoys who were thus permitted unmolested to let loose upon the station a number of the worst and vilest characters to commit havoc and destruction, and who in all probability were the chief perpetrators of the atrocities committed on helpless women and innocent children, for the bodies found in the neighbourhood of the old jail were the most mutilated, and by sword cuts, whereas those by the parade-grounds were evidently shot and lay as they fell. In tracing the route taken by one unfortunate lady who, with her children, fled in disguise towards the city, Major Williams felt convinced that as she emerged from the narrow lanes of the Husaini Bazár on to the high road, she must have fallen in with a band of these wretches and by them have been murdered. Then came the cries of "Ali, Ali," "Dín, Dín, Ya Illah," from small bands of Musalmán troopers and sepoys, who rushed through the city arousing the butchers and others to a religious war. The Judge's court and the tahsíldár's office were at once burned down. Mixed crowds of soldiers, sepoys, policemen, hangers-on about the bazárs, servants and convicts burned and plundered the cantonments, murdering every Christian that they could lay hands on. Owing to the distance of the civil station from cantonments nothing was known concerning the outbreak until close upon 7 P.M., when the people going to church saw the blaze of burning bungalows to the west. The g'ards of the different

mutinous regiments posted in the civil lines seemed to have as little knowledge of the impending catastrophe, for it was not until they saw the destruction of the residences of their officers and heard the shots fired from cantonments that they marched off to join their regiments. The guards at the treasury and the offices of the Paymaster and Cantonment Magistrate remained steady until relieved, and even a troop of the 3rd Cavalry under Captains Craigie and Melville Clarke assisted in restoring a semblance of order and in escorting Europeans to the dragoon lines. Nothing was done by the military authorities to stem the onward march of the plunderers, and the isolated efforts of a few officers who were left unsupported were of little avail against the myriads of ruffians whose thirst for rapine and blood made them such formidable antagonists. This irresolution is one of the saddest memories of the great struggle. There cannot be any doubt that had one tittle of the energy that was displayed elsewhere been shown in Meerut on the evening of the 10th of May, the mutiny could never have occurred, or, at least, would have been indefinitely delayed. At Meerut there were more English troops than had won many a decisive battle on the plains of Hindostan, but there was no leader equal to the emergency, and there were fatal flaws in the military organization. The Rifles could not without delay be supplied with ammunition: a large number of the Carabineers could not ride, and there were no horses for them if they could. Those who were fit for action were put through a long process of roll-call, while the last precious hours of daylight were passing away. It was dark when the English troops reached the native lines, and they found them deserted. A few shots were fired at stragglers, and the European brigade bivouacked for the night. There would have been no necessity for the whole brigade to have pursued the rebels, and eight hundred English soldiers, a regiment of English cavalry and a large body of European artillery were not all needed to defend cantonments against the possible attack of a rabble. If a squadron of Carabineers and two hundred Rifles had pursued the mutineers and reached Dehli a few hours after them, the imperial city might have been saved.

The rebel troops having safely got out of Meerut fled in various directions. The greater number, after a short and hurried consultation, turned towards Dehli, which they reached early on the 11th of May; but they were a disorganized mob with no acknowledged leader, and many smaller groups went off elsewhere. Some of them threw away their arms and property as they fled, fearing the pursuit that was never attempted, and others abandoned their horses which were caught towards Guláothi on the Bulandshahr road and were brought in. Many small bodies took to indiscriminate plunder as they went along and were joined by the ruffians of the bazárs and city and the numerous camp-followers, and forming themselves into gangs robbed travellers on the high road of all that they possessed. The remainder spread fire and destruction nearly up to the treasury, where they were stopped by the guard of the 60th Rifles. About 10 P.M. the Gujars of the neighbouring villages crowded in thousands to attack those parts of the station which had hitherto been spared. They set fire to the lines of the Sappers and Miners; a fine barrack for Europeans and the native huts were destroyed and the sergeants' bungalow. The only occupants of the bungalow were a conductor and his family. The father and some of the children were cut to pieces, and the mother and the reminder of the children, dreadfully wounded, escaped to the artillery hospital where one of the children soon after died. Mr. Parker of the Canal office defended his house until relieved by the Rifles. Other houses were saved by the servants and the police cavalry. The Gujars attempted to burn the artillery lines, but were driven off by the pickets. The new jail and all the private houses were completely gutted of their contents, and whatever could not be carried away was smashed into fragments. The house of the Commissioner was attacked, and Saiyid Mir Khan Paghmáni, who joined the Commissioner, had his horse shot under him and was wounded in the thigh whilst trying to restrain the mob. The Commissioner with his wife and another lady retired to the roof of the house, and the servants said that they had gone to church. "Though drawn swords were put to his throat, the jamadar, Gulab Khan, persisted in this statement, and the other

The Gujars.

servants were faithfully silent regarding their master's presence. The house was fired; the flames spread, and longer continuance on the roof became impossible; suffocated with smoke, with feet scorched by the heat of the roof, the party was about to descend, when, for a short time, the whole body of murderers went to hunt for Europeans in other places. The servants seized the moment to plant a ladder against the roof at the back of the house, got the party down, took them to the garden, and then concealed and guarded them all night." Two sepoys of the 11th Native Infantry carefully escorted some ladies to the dragoon lines, and a city Musalman saved two Christian families. A female servant and a washerman were trying to save a lady and her children disguised in native clothes, when a ruffian drew aside the veil, and seeing the pale face, cut the poor mother to pieces. If the fact be realized that on many minds the fearful conclusion pressed that if less than 2,500 native troops dared such an outbreak in the face of an equal number of European soldiers, a fearful trial awaited every Christian in the length and breadth of Hindostan, some idea will be formed of the horror felt by every one on the night of Sunday, the 10th May 1857, a day ever to be remembered in the annals of India. A telegram was sent to Agra, but the wires were cut before the message was completed, and expresses were then sent to Muzaffarnagar, Dehli and Bulandshahr.

At daybreak on the morning of the 11th a force was sent out to reconnoitre. Mr. Williams writes: "It is a marvellous thing that with the dreadful proofs of the night's work in every direction, though groups of savages were actually seen gloating over the awful mangled and mutilated remains of their victims, that column did not take immediate vengeance on the Sadr Bazár and its environs, crowded as the whole place was with wretches hardly concealing their fiendish satisfaction and where there were probably few houses from which plundered property might not have been recovered. But the men were restrained, the bodies were collected and placed in the theatre, in which a dramatic tragedy would have been that night enacted but for the real and awful one which occurred the night before. The corpses were found grossly mutilated and in a state which

showed that they had been exposed to the most wanton insults. Such matters could not be made the subject of judicial inquiry and proved by depositions on oath without reference to names, and putting on record individual instances which in mercy to the feelings of relatives should be buried in oblivion. But the fact that the most atrocious indignities had been inflicted after death is as fully proved as anything in this world can be by credible European eye-witnesses, whose accounts have been elicited and confirmed by repeated inquiries through different channels. Generally, the ruffians seem to have been too intent upon the destruction of Christians, too eager to kill, to think of any other atrocities till life was extinct, but in one case there is no doubt of the infliction and repetition of the deepest dishonour, and acknowledgment was publicly made that this was attempted in another case on a Christian female, though these were exceptional cases."

The European guards were removed within their lines on the 11th and a line of sentries was posted around the European cantonments. Those whose homes had been destroyed were accommodated in the Damdama, or artillery school of instruction, and the treasure was also removed there. In the meantime the Gujars and bad characters commenced the same system of plunder throughout the district that had been so successfully inaugurated in the city. Ramdayal, a prisoner confined in the civil jail for debt, was released on the night of the 10th, and hastening to his village of Bhojpur, in the Muradnagar tahsíl, collected a party and murdered the money-lender who had the decree against him. On the 11th and 12th the tahsíli of Sardhana was attacked by Rangars and Rajputs, who were beaten off from the tahsíli, but they succeeded in plundering the bazár. Qalandar Khan, a havildár of Nirpura in pargana Barnawa, set himself up as Raja of those parts. On the 12th a party of fugitives from Dehli came in, bringing the news of the mutiny and massacre there. It consisted of Captain DeTeissier of the Artillery and his wife, Major Abbott, Captain Wallace and his family, Captain Hawkey, and Mr. Elton, all of the 74th, and Mr. Murphy, Collector of Customs. Another party was less fortunate; it was composed of Captain

by a squadron of the Carabineers, to the right along the banks of the river. The insurgents opened upon these advancing parties with heavy guns which were admirably served, and the General ordered two more companies of the Rifles to support this advance and also brought up Major Scott's battery, the Sappers and a squadron of Carabineers. Then Major Tombs and Colonel Murray Mackenzie crossed the Hindan, and raking the enemy in flank with their guns, made their fire unsteady and silenced their heavy guns which had already felt the effects of the two 18-pounders under Lieutenant Light. The Rifles thereupon attacked in the most gallant manner and drove the enemy from their guns, but in the act of taking possession of two heavy pieces on the trunk road close to the toll-house Captain Andrews and four men were blown up by the explosion of a powder wagon fired by one of the mutineers. The enemy were now in full retreat, pursued by the Carabineers, and left behind them ordnance, ammunition, stores and five guns. Our casualties were heavy; one officer and ten men killed, and one officer and 18 men wounded. The dead were buried close to the main road in a small cemetery which is near the Ghaziabad inspection bungalow.

Second action.

The force halted for the night, as the insurgents were known to be still in the vicinity of the town beyond the river. On the 31st of May Brigadier Wilson was again attacked in force about one o'clock. The rebels took up their position on the high ridge as before, about a mile from the picquet at the bridge and commenced firing at long range. The guns of the horse artillery supported by a squadron of the Carabineers moved forward to reply, while the two 18-pounders advanced to the river bank. The Rifles, leaving one company in camp, went to the bridge with two field guns and a squadron of Carabineers. The horse gunners were exposed to a very heavy fire, and consequently they were reinforced by two more guns; and an artillery duel was maintained for nearly two hours. Then after the Rifles had cleared the village to the left of the toll-house, and the enemy's fire had slackened, a general advance was ordered and the insurgents were gradually driven from their position on the ridge in full retreat for Dehli. The English, exhausted by thirst and

the burning sun, could not pursue, and the mutineers escaped with their guns; but they had lost heavily, and the moral effect of their defeat was great. Our loss was Lieutenant Perkins of the artillery and eleven men killed, and Lieutenant Napier of the 60th, who afterwards died, and eleven officers and men wounded; but of the casualties nearly half were caused by the sun.

Local disturbances. The brigade then halted, and on the 1st of June the Sirmor battalion of Gurkhas arrived. The enemy, though constantly threatening, never made an attack, and on the 4th orders were received to march. Brigadier Wilson proceeded to Baghpat, crossed the Jumna and joined General Barnard at Alipur on the 7th of June. With the departure of the troops, however, the position of things in the district became worse. One Sah Mal, a Mawai Jat of Bijraul in pargana Baraut, commenced his career by seizing five hundred head of laden cattle, and proceeded to collect escaped convicts and the worst of his own brotherhood to form a gang for more daring exploits. The Gujars also were daily becoming bolder. The force at the disposal of the local authorities was small: about 125 of the 11th Native Infantry had not mutinied, but had been subsequently disarmed. Most of them volunteered for service in the police, and were distributed in parties of 25 or 30 in the different tahsíls, without uniforms, without European officers; a small party of eleven was driven in by a large body of Gujars, and in consequence several deserted; but the remaining 99 proved loyal throughout the disturbances and did excellent service. On the 1st of June Mr. Williams with Captain Craigie, who had raised a body of forty horsemen, started for Bareilly, but on the 3rd, when half-way between the Ganges and Moradabad, heard of the mutiny at Bareilly and consequently returned to hold the bridge at Garhmuktesar. Here they were joined on the 4th by the fugitives from Moradabad, Messrs. Saunders, Wilson and J. S. Campbell, and Dr. Cannon and their wives. Owing to the covert disloyalty of the escort and the opposition of the people of the town it was not possible to destroy the bridge, but orders were given to draw up all the boats on dry land. The party then returned in safety to Meerut. On the 3rd of June a party of

Carabineers had gone out with the Collector to punish the villages of Gagaul, Sisari and Muradnagar to the south of Meerut, for having stopped communications along the Agra road. The villages were surrounded and burnt, but all the inhabitants had escaped owing to the treachery of Bishan Singh, the kotwal of Meerut, who subsequently joined the rebels.

The Bareilly rebels.

On the 12th of June, Mr. Dunlop, the Collector, who had been on leave in the hills, made his way to the headquarters camp before Dehli and returned to Meerut, where he resumed charge of the district. On the 18th a small party consisting of 75 men of the Rifles, 50 Carabineers and two guns, with the officers of Bulandshahr who had been compelled to retire to Babugarh, proceeded to Gulaothi in the north of the Bulandshahr district and defeated the rebels under Walidad Khan of Malagarh. At the same time, Mr. Wilson went with a party of Carabineers to Garhmuktesar to destroy the boats and thus prevent the approach of the Bareilly mutineers. He found that Mr. Williams' order had been carried out, and could do no more than render the boats unserviceable. The Bareilly brigade, however, contrived to find boats at other ghats with the aid of the Gujars and others who were interested in keeping up the disturbances. The brigade consisted of a light field battery, a regiment of cavalry and four regiments of infantry, besides a large following of all sorts, and commenced slowly to effect a passage. Opinions at Meerut as to the proper course to be pursued in dealing with this brigade were divided. One party was for opposing the passage at Garhmuktesar, which might unquestionably have been successfully done by a force which could have well been spared from the station. But this would only have caused a delay of a few days, for the brigade could have moved down and crossed below where no force from Meerut could have dared to go and meet them. Another was for allowing the mutineers to cross and attacking them midway between the Ganges and Dehli. For this the force at Meerut was not sufficient. Not more than five hundred really effective European soldiers could be detached from Meerut; but it was hoped that advantage might be taken of the straggling line of march of the mutineers, encumbered as they were with

about seven hundred carts laden with plunder and women, by a flank attack. Timely and earnest requisitions were made to the headquarters camp before Dehli to reinforce the Europeans of Meerut with a detachment of five hundred men from the force encamped at Rái, opposite Bághpat, who could easily have reached Meerut in two marches. The position before Dehli, which was never forced even when the number of rebels in Dehli had been trebled, had been seized. Mutineers discouraged by defeat had been driven into the city, and the headquarters camp was quite strong enough to hold its own for a few days, even without the reinforcement referred to, as the actions on the Hindan and at Badli-ke-Sarái had fully proved. The requisition, however, was negatived, and peremptory orders were sent to the Officer Commanding at Meerut prohibiting any offensive measures, and directing him to confine himself entirely to the defensive. The effect of this order on Meerut and the surrounding districts was disastrous. The Bareilly brigade passed through the district, burning and plundering all Government property. The stud buildings at Bábugarh were destroyed. Open rebellion showed itself on all sides. Walidad of Malagarh became master of the Bulandshahr district, Aligarh was evacuated, and Kadam Singh set up for himself as Raja of Parichhatgarh and Mawana, and unearthing five guns which had been buried since the conquest in 1803, called his Gújar clansmen to arms. This hesitating policy encouraged the turbulent and confirmed the wavering to the side of disorder, so that at no time since the outbreak had the district officers so many difficulties to contend with.

The Volunteers.

The villagers on all sides up to within a few miles of cantonments had become so bold that the necessity of some active measures for their coercion and the restoration of some semblance of authority and order had become palpable to all. Major Williams of the police had arrived at Meerut on his way to Agra and was of necessity detained. He and Mr. Dunlop proceeded to form a volunteer force, which, from the colour of their uniform, became known as the Khaki Risala. They collected all the unemployed Europeans, and in a short time they had forty-five mounted Europeans, eleven faithful troopers,

38 native infantry and two European sergeants, as well as two mountain guns, worked by two sergeants and ten native artillerymen. The first expedition of this corps was made on the 4th of July, when they went out against several Gújar villages about six miles from Meerut in company with 100 men of the Rifles, 60 Carabineers and two horse artillery guns. The principal villages were Panchlighat and Nagla, the inhabitants of which had made themselves especially notorious: they were successfully surrounded a little after daybreak, and a large number of the male inhabitants were killed, 46 taken prisoners, of whom 40 were subsequently hanged, and all the cattle carried off; the villages were then burnt. This had an immediate effect, for the revenue again began to be collected. It was fully time, for not more than a few thousand rupees of revenue had been paid, and the instalments had now been long overdue. There were only Rs. 70,000 in the treasury which would have been expended in a few days, and except with a strong force not a Government officer could move five miles from Meerut. On the 6th July intelligence was received of the defeat of the rebel force under Walidad Khan by the Jats of the village of Bhatauna, who took three of his guns and wounded and killed several of his men. These gallant Jats stood out for themselves and for Government throughout the rebellion, and thenceforth particular care was taken to support them and render them assistance when seriously threatened. One effect of these proceedings was that Kadam Singh, the self-styled Raja of Parichhatgarh, retreated to the Gújar stronghold of Bahsuma, and his men dispersed, and petitions kept pouring in from different quarters in which the writers tried to prove their loyalty or to excuse themselves from showing any active support of the ruling power. Sáh Mal of Bijraul now attacked and plundered Bághpat and destroyed the bridge-of-boats, the only remaining means of communication with the headquarters camp before Dehli.

Further operations.

Brigadier Jones of the Carabineers superseded General Hewitt in command of the station, but the order against employing the troops in offensive operations remained in force. The civil authorities again despatched the volunteers to relieve Begamabad, which was reported to be threatened by the Gujars of Sikri.

Before the relief arrived Begamabad had been plundered, but the volunteers determined to attack the rebels in their homes. Sikri was surrounded, and in the outskirts upwards of thirty men were killed, whilst the remainder fled to a large native house with a walled enclosure and offered a determined resistance. The house was gallantly stormed and captured by the dismounted cavalry; and after a severe hand-to-hand encounter within the enclosure, the rebels were disposed of and the village was burned. Still affairs to the west remained in a very unsettled condition: many of the inhabitants of the south-western and western parganas transferred their allegiance to the king of Dehli, and in Dhaulana they expelled the police and destroyed the Government offices. Supplies were constantly collected and sent to the rebel camp from Baraut, and though earnest representations were made as to the necessity of keeping up and commanding the communications with Dehli through Bághpat, nothing was done. One petition was, however, favourably received, and that was that the General might use his discretion in detaching portions of the troops for service in the interior. The first use made of this permission was to send forty men of the Rifles with the volunteers to beat up the quarters of Sáh Mal. On the 16th of July the force arrived at the Hindan and heard that the Ját was about to attack the loyal village of Deola, which had assisted the fugitives from Dehli. The ford over the Hindan was barely practicable, and after having it marked the force crossed and pushed on to Deola where they arrived early on the morning of the 17th, to find that the enemy had fled during the night, leaving their cooking utensils behind them in their haste. The people of Basodh were punished for their complicity with Sáh Mal, and immense quantities of grain that had been stored for conveyance to the rebel camp at Dehli were destroyed. As the force were leaving the village, Dr. Cannon with one native horseman was attacked by a large party of rebels, but they dearly paid for their rashness, for the cavalry portion of the force came upon them while held in check by these two gallant men and soon put them all to flight with great loss.

Defeat of Sáh Mal.

The attacking force, Europeans and natives, only numbered 129 men, and not satisfied with the success that they had met

with resolved to pursue Sáh Mal and his army. Mr. Williams writes: "On the 18th of July, at daybreak, the force marched along the left bank of the Eastern Jumna Canal for the town of Baraut, a distance of about fourteen miles. The Magistrate and Collector, Mr. Dunlop, with rather rash zeal diverged from the line to visit villages with the view of collecting revenue, but soon found a host coming against him and had to fight for his life like a man and rejoin the force. The whole country was rising; native drums, the signal to the villagers to assemble, were being beaten in all directions and crowds were seen moving up to the gathering place ahead. On reaching Baraut the advance guard was attacked; the mounted volunteers drove back the insurgents, killing upwards of thirty of them in the skirmish. An advance was then made on the force by a large body commanded by Sáh Mal himself, who took up a position in an extensive orchard of large trees with a tank in front. The Rifles advancing beautifully drove them out of that, killing many, into the fields of Indian-corn behind, and the mounted volunteers on each flank swept round the orchard, and on the enemy breaking into the fields charged them. Those on one flank coming on a party of mounted men went at them, and after a hand-to-hand fight, in which many of the rebels were killed, it was found that Sáh Mal himself was one of the slain having been killed by Mr. A. Tonnochy aided by two of the native troopers. The little force had hardly collected together again when a third attack from a fresh quarter was made by the rebels, but feebly sustained. The news of the death of Sáh Mal having spread, a few rounds from the mountain train guns, and another advance of the Rifles and mounted volunteers, sufficed to disperse this body; and this gallant little band remained masters of the field, having beaten off at least 3,500 men with considerable slaughter of the rebels, the loss on our side being only one killed and a few wounded; among the latter was Mr. Tonnochy who had a narrow escape, having a spear thrust at him while engaged with Sáh Mal. One of the volunteers, Mr. (afterwards Sir A.) Lyall, C.S., had a valuable horse killed under him in a personal combat with one of the insurgents. Though Sergeants Anderson and Readie did all good soldiers could do, the mountain

train guns, save in the third attack, were of no use. Dr. Cannon had actually to seize and press some of the enemy to carry the ammunition. The success, indeed the safety of the whole party, must be ascribed to the men of that noble corps, H. M.'s 60th Rifles, under Lieutenant Mortimer particularly, and to the mounted volunteers. Some of the najíbs, *i.e.* the Magistrate's trained guard, behaved very well; the rest of the infantry were hardly equal to guarding the baggage. But the simple fact that 149 men entirely defeated at least 3,500, after fighting for more than three hours, speaks for itself; all must have behaved nobly. The force encamped that night on the right bank of the canal at Baraut and the head of Sáh Mal was exhibited, so that none might doubt his death."

"Next day intelligence of an intended attack by a more formidable body of insurgents was received, and a requisition was sent to Meerut for support. On the arrival of the reinforcement both detachments marched to Sardhana on the 20th and halted there. On the following day the village of Garhi, which had been concerned in the attack on the Sardhana tahsíli and the plunder of the bazár on the 11th of July, was visited and the inhabitants were punished, and the force returned to Meerut on the 23rd of July. The effects of this wholesome activity were soon visible all over the district in the collection of the revenue. In this work Mr. J. Cracroft Wilson, the Judge of Moradabad, gave most valuable assistance with about 25 of the men of the 8th Irregular Cavalry who had come over with the civil officers from Moradabad and remained staunch. This most energetic officer, without another European, with only natives whom few would have trusted, went out day after day, having two sets of horses that the animals might get rest, in every direction, collecting revenue, suppressing anarchy, and (having been made a Special Commissioner with powers for the purpose) punishing rebels and plunderers. Over a flooded country, under a burning sun or through rain, Mr. Wilson would make his nearly daily march of about 30 miles, including going and returning, besides occasional chivies after conscience-struck scoundrels who fled on seeing him. On one occasion, between early morning and dark, he with his men made a march

of 26 miles out and back, in all 52 miles, having sent on a change of horses with merely the grooms to a notorious village, two of the headmen and two inhabitants of which he had been obliged to hang for a most atrocious case of highway robbery and murder, among other heinous crimes, a place where in June it would have been rash to have sent the horses with their riders. But in the neighbourhood of Dehli and towards Malagarh rebellion was spreading, being encouraged by constant detachments of mutineers from those places."

Action near Gulaothi.

On the 27th of July intelligence was received of an intended attack by Walidád on the Ját village of Bhatauna, and it was determined at all hazards to support the Játs and drive the rebels back. A small force consisting of 50 Carabineers, the volunteers, 50 of the Rifles and the band of that regiment was despatched to Hapur, and on the 28th it was ascertained that Walidad Khan had posted 400 cavalry and 600 infantry, with about 1,000 insurgent Gujars and Rajputs, at Gulaothi on the Agra road. An immediate attack on his position was decided on; a small detachment was left to guard the baggage, and the remainder marched for Gulaothi at 2 A.M. on the 29th July. On the way information was received that a picket of the rebels was posted at a bridge about four miles on the Hapur side of Gulaothi, and a surprise was arranged for and admirably carried out by Capain Wardlaw and a party of the Carabineers. The rebel picket consisted of sixty cavalry, and of these forty were killed in the attack. The whole force then advanced on the village, the Rifles cleared the enemy out of the high crops on each side of the road in which they concealed themselves, and the cavalry and guns marched along the road. About one mile from the village a body of the enemy's horse appeared on the road, but a few rounds from the guns sent them flying, and on arriving, the village was found to have been evacuated. The cavalry was sent in pursuit, but with directions not to approach Malagarh; these instructions were issued in obedience to the orders of the military authorities then at Lahore. The force returned to Meerut on the 30th. The restrictions perpetually imposed on the local authorities were much to be regretted, as owing to the defeat of his men Walidad was then left almost

alone, and an attack on the fort would most probably have had a successful issue. Two singular guns, made of the iron screw sockets of the telegraph posts and mounted on rude carriages, were captured at Gulaothi. The ammunition consisted of pieces of telegraph wire put up in bags with the powder, and a supply of powder in barrels, and coils of telegraph wire as reserves were also discovered.

The western parganas.

On the 30th of July a party of rebels from Gháziabad attacked and occupied the Muradnagar tahsíli and carried off the officials as prisoners to Dehli, so that it became necessary to remove the headquarters to Mohiuddinpur, about eight miles from Meerut. Officials appointed by the rebels spread over the Muradnagar, Dasna and Dhaulana country, but still the tahsíldár contrived to get in some of the revenue. In the Hapur tahsíl, the neighbourhood of Walidad Khan's force at Malagarh severely checked the restoration of order, and on one occasion the tahsíldár was at Datiana on the Garhmuktesar road when he heard that a party from Malagarh was coming to attack him and take off the money. Mr. Wilson with his troopers was then at Parichhatgarh, and he there received an appeal for help from the tahsíldár; while at the same time a troop of Carabineers was sent out with the Joint Magistrate from Meerut to join Mr. Wilson at Kithor. Thence they proceeded to Datiana, where they found that the Gujars for once had assisted the tahsíldár and driven off Walidad's men. In the west of the district the rebels pushed up as far as Dhaulri and carried off the four policemen stationed there. Across the Hindan the rebels were still strong. Sajja Mal, a grandson of Sáh Mal, about this time returned from Dehli, and again commenced to create disturbance in Baraut. On the 23rd of August a party sent to bring in the revenue was attacked: some were killed and wounded, whilst in one case the villagers said their revenue was ready, but Government should come and take it if they wanted it. Again the Khaki Risala were obliged to take the field against the villagers of Panchli Buzurg, Nagla and Bhupra, who met with a well-deserved punishment.

Walidad threatens Meerut.

By the middle of August the whole of the district except Baraut on the west, Muradnagar on the south-west, and the

Hapur boundary on the south was again for a short time well under control; but Walidad, having been strengthened by the Jhánsi Brigade, attempted, with their aid, to raise a levy *en masse*, and gave out his intention of attacking both Hapur and Meerut itself. This was a serious state of affairs, and to add to the difficulty the Muharram was then going on, and a requisition came from Dehli for two hundred more men of the 60th Rifles and all the artillery recruits and officers. This last demand reduced the available force in Meerut to one-sixth of the force, which in May, when there really were no enemies who might not have been suppressed by a little energy, was considered barely sufficient to defend the station. "No objection could, of course, have been made to increasing at any sacrifice the army at Dehli for the assault, but it was known that the assault would not take place for at least a fortnight, and the detachment from Meerut, which could reach Dehli in three days by Baghpat, was ordered first to march by Saharanpur and Karnal. Notwithstanding earnest remonstrances and solicitations that instead of these valuable soldiers being exposed to a long tedious march up the country, and down again when they were not wanted, they might be kept to drive back the enemies that were threatening Meerut, and notwithstanding the fullest assurances that they should be sent by the direct road and be at Dehli before they could possibly reach by the long route selected, they were taken away. Under these circumstances, after due consideration, it was happily decided that the only way to meet the crisis was to face it manfully by taking the offensive instead of waiting to be surrounded. It was assumed, and as events proved perfectly justly, that nothing was so likely to deter the seditious from any attempt as the movement of a compact little column, and that the appearance of one at Hapur would check Walidad's advance, and thereby all the probable consequences of it." Accordingly a force of 300 Europeans, consisting of 100 men of the artillery and 200 of the 60th Rifles, were despatched towards Hapur on the morning of the 27th August, the last and greatest day of the Muharram. The first halting-place was selected with a view of allowing the troops to remain near enough to Meerut to hear any firing, should any disturbances occur there

and at the same time to frighten Walidad by the advance of our troops. In the spirit of the instructions already issued, the column had orders not to go near Malagarh, nor to advance beyond Hapur unless attacked or pursuing. It therefore took up a position near Hapur, and Mr. Wilson took advantage of the presence of the troops to collect the revenue. The Rajput landholders of Pilkhua sent in to say their revenue was ready and that they were ready to bring it in, but begged that two messengers should be sent to accompany them. Two men were sent, but as soon as they entered the village were murdered by these very people of Pilkhua. A portion of the column visited this village with exemplary punishment.

Second action near Gulaothi.

The column remained at Hapur, where it was strengthened by some men of the Carabineers and the volunteer horse. On the afternoon of the 10th of September intelligence was received at Hapur that the Malagarh rebels were advancing. Major Sawyer took a portion of the mounted force with two horse artillery guns to reconnoitre, and drove in an outlying picket of the enemy on the road towards Gulaothi; following up at a gallop they arrived to within 250 yards of the main body of the rebels, who opened on them a smart fire which continued for some twenty minutes. Fortunately the dashing approach of the reconnoitring party disturbed the range of the enemy, and their four 9-pounder guns were soon silenced by the two 6-pounder guns of the horse artillery. Though the Carabineers were drawn up on one side of the road, with the volunteers on the other, and the guns on the portion of the road in the middle, and shot and shell fell thickly round the small party, the only damage received by them was a spoke of the wheel of one of the limbers smashed. "The last few rounds were fired after dusk, and as the main body of the enemy was above 1,000 strong it was not considered prudent to advance upon them with only 100 cavalry and two guns, and the reconnoitring party returned to camp. It was subsequently ascertained that the rebels really had fled bodily, leaving all their guns, one with the carriage smashed to pieces, on the road the whole night; and that had cavalry pushed on, or had the whole column advanced from Hapur, so as to reach Gulaothi before daybreak, the next day the four guns

would have been taken. But not even previous successes would have warranted the advance of the reconnoitring party in the dark into what looked so very like a trap, and it was considered too much for the men and horses to take them out again nine miles in the middle of the night after they had just returned from their reconnoitre of nearly 18 miles. The news of the flight of the rebels was not received till too late, and so the gallant little party had not the satisfaction of bringing away the guns they so boldly silenced. Bhatauna, the village of our Ját allies, was attacked by the Malagarh rebels, the Jhánsi Brigade, and the guns of which they resumed possession when they recovered from their panic, and notwithstanding that the Játs could not use their guns, being attacked at points on which the guns, by some arrangement immoveable, did not bear, they beat off their assailants most gallantly, with a loss to themselves of only twenty-five killed and wounded. The news of the attack did not reach the Hapur force in time for them to assist the Jats. The Hapur column had no further opportunity of distinguishing itself, but remained out, fully accomplishing the object for which it was detached till hastily summoned to Thána Bhawan in the Muzaffarnagar district.

Attack on Murad-nagar.

"On the 17th September an attempt was made to surprise the rebel tahsíldár of Muradnagar, and a small force (243 Panjabi cavalry and 80 foot police) of native cavalry and infantry, under Major Stokes and Captain Craigie, marched during the night and arrived at the town about 6 A.M. The position of the rebels was a strong one. Muradnagar has a brick wall on three sides and is surrounded with mango orchards and at the time was almost concealed by high crops. The column was fired at on approaching the wall, and a body of about two hundred horse came out on one side. A part of the cavalry was sent after them. The enemy attempted a charge, but their hearts failed them and they turned and fled pursued by the Multan cavalry led by Lieutenant Armstrong of the 59th Native Infantry so closely that they had not time to shut the gate, and Lieutenant Armstrong and his men drove them before them, cutting up a number through the village into the high cultivation on the other side in which, after many had been killed, the rest

got off. Subsequently, while Lieutenant Armstrong was engaged in clearing the village, he was suddenly attacked by a rebel trooper of the 9th Irregular Cavalry, who rushed at him, and having him at a disadvantage cut him down. An Afghán with Lieutenant Armstrong dismounted and killed the rebel and thus saved his officer's life. In the meantime Captain Craigie tried with his party to intercept another body of rebels. His men, newly raised since the mutiny, wanted confidence, and he himself with his native Adjutant and one or two men outstripping the not over-zealous main body got engaged with the enemy. The native Adjutant, formerly a havildar in the 11th Native Infantry who had remained firm to his duty, not being a good horseman, was mortally wounded before Captain Craigie could save him, but the rebels found this well-trained cavalry officer and the few men near him more than they liked, and, when the rest of the troops approached, fled. Though the rebel tahsíldár escaped, the result of this expedition was most satisfactory: the rebels were driven completely out of the pargana and across the Hindan river, and from a large tract the collection of the revenue commenced. The road from Meerut to Dehli was opened; 57 of the enemy, among them many of the 9th Irregular Cavalrymen, were killed and 17 prisoners were taken. The loss on our side was one of Captain Craigie's men killed and one severely wounded; one risaldár and two dafadárs and three sowárs of the Multan Horse slightly wounded.

Pacification.

This little affair at Muradnagar marked the end of the rebellion in Meerut. Immediately afterwards, on the 14th of September, Dehli was taken and all hopes of the rebels disappeared and fighting ceased. The Collector, with a party of mounted and foot police, made a tour of the district, seizing and summarily disposing of rebels. "On the evacuation of Malagarh after the fight at Bulandshahr, mail-carts and dák-carriages began to run, traffic recommenced, and soon the only signs of the deadly strife were the blackened ruins of public and private buildings, the sad row of tombstones recording the dreadful deaths of those who were massacred, and the little entrenchment where, with numbers decreasing as the danger increased, a little band of Europeans amidst thousands and

thousands of rebels, and within reach of Dehli, maintained the name of their country and the authority of Government." The Rohilkhand rebels kept a large force with artillery on the east of the Ganges opposite the north-east part of the district; but the presence of a small party of mounted and foot police, and when they threatened invasion, two horse artillery guns and a small body of troops sent on requisition by the military authorities, checked them effectually, and though mustering about 6,000, with eight guns, they were never able to enter the district.

Subsequent events. Thus ended the mutiny in Meerut, and in the whole of the division, for this was the first of all the divisions of the provinces in which order was restored. Since that time the history of Meerut has been a record of quiet and continued prosperity. Nothing has occurred to disturb the peace of the district, and all matters of interest, fiscal, economic and administrative, naturally fall under the different heads into which the preceding chapters have been divided.

GAZETTEER

OF

MEERUT.

DIRECTORY.

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DIRECTORY.

CONTENTS.

ABDULLAPUR, *Pargana and Tahsil* MEERUT.

A large village, in latitude 28° 59′ north and longitude 77° 46′ east, at a distance of three miles north-east of Meerut city between the Abu Nala and the canalized Kali Nadi on the unmetalled road to Parichhatgarh. It belongs to well-to-do Saiyid zamindars. It contained at the last census a population of 3,018 inhabitants, of whom 1,608 were Hindus and 1,410 Musalmans. About half the Hindus are Chamars. There is a village school here.

Abdullapur is administered as a town under Act XX of 1856. In 1901 out of 1,043 houses, 933 were assessed to taxation, the income from the house tax being Rs. 939, with an incidence of Re. 0-15-10 per assessed house and Re. 0-5-6 per head of population. The total income, including a small balance from the preceding year, amounted to Rs. 1,119. The expenditure for the same year amounted to Rs. 1,067, of which Rs. 460 were devoted to the maintenance of the town-police, Rs. 312 to conservancy and Rs. 238 to local improvements.

AGHWANPUR, *Pargana* KITHOR, *Tahsil* MAWANA.

A village about two miles west of the banks of the Burhganga adjoining Puthi on the east and 18 miles from Meerut, in latitude 29° north and longitude 78° east. It contains a population of 3,148 inhabitants, of whom 1,352 are Musalmans, the majority of the Hindus being Chamars. It belongs to Pathans, whose ancestors are said to have come from Afghanistan with Sultan Ala-ud-din Masaud. According to their tradition, they subdued an oppressive Raja of Shemdatt, a neighbouring village, and took possession of his estate. The villages

of Akbarpur, Aidalpur and Mirpur were founded from Aghwanpur, which seems at one time to have been a centre of considerable influence. The village of Kharkhali in the khadir adjoining Mirpur was built as a cattle-station by these Pathans and is still solely inhabited by Ahirs. The lands of Aghwanpur are high and sandy, and to the east are broken by ravines which lead down from the high bank to the khadir.

AJRARA, *Pargana* SARAWA, *Tahsîl* HAPUR.

A village on the eastern bank of the eastern Kali river, situated in latitude 28° 50′ north and longitude 77° 50′ east, at a distance of about four miles due east from Kharkhauda and twelve miles from Meerut. It adjoins Mundali on the north and Atrara on the south, both of which are separately described. The village was once the capital of a pargana of the same name, which was absorbed into Sarawa in 1853. It now contains a population of 3,021 inhabitants, of whom 874 are Hindus, 2,116 Musalmans and 36 Aryas. The place is said to have been the seat of Hindu monarchy previous to the Musalman invasion. One Ajaipal, a Jogi, built a Thakurdwara here and called the place Ajaipara, now corrupted into Ajrara. A contribution is still made by Government from the revenue of the village towards the upkeep of the temple. In the time of Muhammad Shah, Khwaja Basant Khan obtained Ajrara in jagir. He built a fort, which was destroyed by the Mahrattas in 1794 A.D., on the rebellion of Fateh Ali Khan, brother of Basant Khan. The village lands formerly belonged to Taga Musalmans, but they have now lost a large portion of their proprietary rights which have passed to others, chiefly Hafiz Abdul Karim of Meerut. A small fair takes place here annually. A village school is maintained here.

AMINNAGAR SARAI, *Pargana and Tahsîl* BAGHPAT.

A small town lying in latitude 28° 59′ north and longitude 77° 24′ east, on the unmetalled road from Baghpat to Sardhana, at a distance of 14 miles from Baghpat and 20 miles from Meerut. To the west of the town flows the Bijwara rajbaha of the Jumna canal. It contains a good bazár in which many prosperous money-lenders and traders reside, and a market is

held here every Thursday. The chief shareholder is Khurshed Ali Khan of Baghpat. The place is also known as Lohara Sarai, from a hamlet of that name which adjoins Aminnagar on the north; and contained at the last census a population of 2,280 persons, of whom 2,223 were Hindus, 380 Musalmans and 277 Jains. Aminnagar possesses a school and a cattle-pound and is administered under Act XX of 1856. The police force consists of six chaukidars and a jamadar. In 1901 the total income, inclusive of a balance of Rs. 393 from the preceding year, amounted to Rs. 1,355, of which Rs. 799 were derived from the house-tax. The total number of houses in the town is 959, and of these 746 were assessed to taxation, the incidence being Re. 1-2-0 per assessed house and Re. 0-5-0 per head of population. The expenditure for the same year amounted to Rs. 1,106, of which Rs. 390 were devoted to the up-keep of the police, Rs. 396 to local improvements and Rs. 156 to conservancy.

ASARA, *Pargana* BARAUT, *Tahsíl* BAGHPAT.

A large village lying in latitude 29° 15′ north and longitude 77° 19′ east, in the extreme north of the pargana on the eastern side of the Jumna Canal, which flows a mile and a half to the west. It is connected with Baraut by an unmetalled road which goes on to Shamli in the Muzaffarnagar district, and lies at a distance of 32 miles from Meerut. It formerly formed part of the estate of Begam Somru and is said to have been founded about 600 years ago by Mubarak Khan of Kirthal. It now belongs to Jat Musalmans. There is a small bazár here held weekly and a primary school. It contained in 1901 a population of 3,342 persons, of whom 2,463 were Musalmans and 83 Jains. The main site stands on the high bank of the Kirsani and is drained by several ravines leading down to that river.

ASAURA, *Pargana and Tahsíl* HAPUR.

A large village on the northern boundary of the pargana a little to the east of the metalled road from Meerut to Hapur, at a distance of two miles north of the latter and 17 miles from Meerut, in latitude 28° 45′ north and longitude 77° 47′ east. It had in 1901 a population of 3,535 inhabitants, of whom

1,125 were Musalmans. It belongs to Taga Brahmans and is the great centre of this clan in the pargana. One of their number, Chaudhri Debi Singh, has acquired a very large property, and he and his family hold rights in 27 villages. The title of Chaudhri held by this family is said to have been conferred on Shiam Lal by Muhammad Shah in 1105 H. There is a Government village school here.

AURANGNAGAR, *Pargana and Tahsil* SARDHANA.

Aurangnagar or Rardhana is a large village on the northern border of the pargana and district, situated in latitude 29° 14′ north and longitude 77° 37′ east, at a distance of five miles north of Sardhana, four miles west of the Ganges canal, and about two miles east of the Hindan river. It is traversed by a distributary of the Ganges canal. It contained in 1901 a population of 3,546 persons, of whom 2,611 were Hindus, 618 Musalmans and 317 Jains. It belongs to a body of Chauhan Thakurs, who form the bulk of the Hindu population. A market is held here weekly on Saturdays. The village lands are watered by the right main distributary of the Ganges Canal, which passes to the east of the village and crosses the old Rardhana escape a short distance to the south.

BABUGARH, *Pargana and Tahsil* HAPUR.

A village on the road from Hapur to Garhmuktesar, situated in latitude 28° 44′ north and longitude 77° 52′ east, at a distance of three and a half miles from Hapur. Through the village passes the Oudh and Rohilkhand Railway, which was opened in 1900. There is a station here, with a telegraph office and a village school. In the village is located the Government Stud Farm, of which the stables were built in 1823. It contains the residence of the Superintendent of the Stud and was also till 1903 the cold weather headquarters of the Superintendent of the Civil Veterinary Department of the United Provinces. The population in 1901 numbered 1,783, of whom 352 were Musalmans. The inhabitants are mainly Dhe Jats, Saises and Chamars. The Jats belong to the same family as those of Ayadnagar Janub in the south of the pargana. A small fair is held annually at Babugarh.

BAGHPAT, *Pargana and Tahsíl* BAGHPAT.

The headquarters town of the tahsíl is situated on the left bank of the Jumna, in latitude 28° 57′ north and longitude 77° 13′ east, at a distance of thirty miles from Meerut, with which it is connected by a metalled road which passes to the north of the town and crosses the river by a bridge of boats. Other roads lead north to Baraut, north-west to Kutana, south to Loni and Shahdara, and south-east to Muradnagar. The town is divided into two portions, known as the *qasba* or agricultural quarter and the *mandi* or market. The former lies close to the Jumna among the ravines on the edge of cliffs which carry the drainage to the river below. Most of the houses in this part of the town are in a ruinous condition, and their owners, who are degenerate Chauhans, are too poor to rebuild them. The *mandi* lies to the north of the *qasba* at a distance of half a mile from the river, on a well-raised site, which also has a good drainage towards the river. The place is mainly inhabited by Banias and has a more prosperous appearance than the *qasba*, but the trade is dwindling and the people unenterprising. The remains of a surrounding wall and six gateways are still visible. One wide street runs from north to south and another from east to west, with an open market at their point of junction. Further to the west there is a second Chauk, where another street runs from north to south. The first of these streets forms the principal bazár and is well lined with good shops. The climate, however, is bad, and fever and the decreasing trade have combined to ruin the town. The extreme unhealthiness of the place was brought prominently before the notice of the Government some years ago.

The town is said to have been one of the five "pats" mentioned in the Mahabharata. Its original name seems to have been Vyaghraprastha or "place of tigers." The name was subsequently changed from Bagpat to Baghpat by one of the Dehli emperors. The population at the last census numbered 5,972 persons, of whom 3,287 were males and 2,685 females. Classified according to religions there were 3,593 Hindus, 2,009 Musalmans, 322 Jains, 37 Aryas and eleven Christians. The numbers have greatly decreased of late years, for in 1847 the population was 6,494 persons, rising to 7,887 in 1865. The

decay was first noticeable in 1872, when there was a drop to 7,367 inhabitants. Of the Hindus the majority are Chauhan Rajputs. The Jains are mahajans of the Saraugi subdivision, who are established in the *mandi* which was built about 130 years ago by Zabita Khan. There are two sarais, one in the south of the town and the other, which is the larger, on the east. The latter was commenced by Karam Ali Khan, tahsildar of Ghaziabad, whose family reside here. The tahsíl, which was removed here from Baraut after the mutiny, is situated opposite the police-station on the Meerut road. Behind the tahsíl is the dispensary. The town contains a fine Saraugi temple, a temple of Vishnu, and three mosques. There are also postal and telegraph offices and a military encamping-ground on the route from Dehli to Meerut. There is a middle vernacular school here attended by 50 pupils.

Baghpat was formerly the great sugar mart of the district, and though there is still a certain amount of sugar trade here, the bulk of the traffic has passed to Meerut, where Kaisarganj, with its railway facilities, has become the principal sugar mart of the district. Of late years, too, the trade of Khekra and Chaprauli has also increased considerably, a fact which has doubtless helped to ruin Baghpat. The enormous increase in the importance of Dehli as a trading centre has led the producers to find that it pays better to take the goods direct to Dehli without the intervention of the Baghpat dealers.

The town was for many years administered as a municipality, but owing to its decline it was in March, 1904, gazetted as a notified area under Chapter XII of Act I of 1900. In the appendix to this Volume the statistics of income and expenditure since 1891 are shown.* With the abolition of the municipality the octroi tax has disappeared, and the income is now mainly derived from assessed taxes. The committee consists of the tahsildar and two native gentlemen.

BAGHPAT *Pargana, Tahsíl* BAGHPAT.

This pargana is of considerable size and comprises the whole of the southern half of the tahsíl, extending from the Jumna on the west to the parganas of Meerut and Jalalabad on

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* Appendix, Table XVI.

JALALABAD, *Pargana* JALALABAD, *Tahsíl* GHÁZIABAD.

This village, which gives its name to the pargana, is a purely agricultural place of no importance. It lies in latitude 28° 46′ north and longitude 77° 33′ east, a mile and a half to the east of the metalled road from Meerut to Gháziabad, near the point where it crosses the Ganges canal at a distance of 17 miles from Meerut. Parallel to the road runs the North-Western Railway, with the station of Muradnagar close to the south-western corner of the village. The town of Muradnagar lies two miles to the west. The population of Jalalabad in 1901 numbered 2,971 persons, of whom 2,454 were Hindus, 441 Musalmans and 76 Aryas and Jains. The bulk of the Hindus are Jats, who are the proprietors of the village. There is a post-office here and a village school. Close to the village on the west runs the Jalalabad distributary of the Ganges canal.

JALALABAD *Pargana*, *Tahsíl* GHÁZIABAD.

This is the largest of the three parganas that compose the Gháziabad tahsíl and lies to the north of Dasna between the Hindan river on the west, which separates it from Loni and Baghpat, and the parganas of Hapur and Sarawa on the east. To the north lies the large pargana and tahsíl of Meerut. It has a total area of 128,157 acres or 200 square miles.

Along the Hindan there is a narrow khádir which is more sandy and precarious than in the northern parganas, but which in places bears distinctly good crops. Above the khádir there is the usual high bank, the surface of which is broken with ravines and the soil is poor and sandy. This gives place to a level tract of good soil which is better generally in the north than in the south; there is a small depression which begins to the west of Muradnagar and runs south-eastwards into Dasna. The eastern portion of the pargana lies low in a basin which extends as far as the extrème eastern borders where there are a few villages on higher land. It is imperfectly drained by the Chhoiya and other tributaries of the Kali river and by a series of artificial drains which, while they carry off the water from a very large tract of country, appear to do a considerable amount of injury to the villages in the immediate neighbourhood. It

is a universal complaint on the part of the zamindars through whose villages a drain passes, that they have suffered serious damage from it; and though their complaints are undoubtedly exaggerated, it is true that in some villages a considerable area has gone entirely out of cultivation, because the neighbouring drain has made the land so precarious that the zamindars do not consider it worth cultivating. Complaints of deterioration are also frequently made with regard to the Hindan khádir, a possible cause being the construction of the dam near the railway bridge in pargana Loni, which appears to have raised the water-level in the khádir above it, the result being that *reh* has made its appearance in many places and the land has been injured in consequence.

Of the total area 96,253 acres or 75 per cent. were cultivated in 1308 fasli, showing an increase of 6,265 acres since the recent settlement. The barren area amounts to 17,785 acres and consists chiefly of *úsar* or poor sandy land which is not worth cultivating. The grove area is larger here than in any parganas of the district, and amounts to 1,196 acres. The rabi is the principal harvest and nearly 20 per cent. bears a double crop. The chief staples are wheat, gram and peas in the rabi and maize, sugarcane, cotton and indigo in the kharíf. Both maize and sugarcane have increased in area during the recent years—a change which points to the more extensive cultivation of the more valuable crops and betokens either an improvement in husbandry or, as is more probable, an increased pressure on the cultivators. The pargana possesses ample means of irrigation; for through the centre from north to south passes the main Ganges canal from which a number of distributaries run in every direction. Besides this, there are a large number of wells, but these have been very largely superseded by the canal. In 1308 fasli the irrigated area amounted to 36,875 acres, of which 32,915 acres were watered from the canal, 3,726 acres from wells and 234 acres from other sources. The disappearance of well irrigation is strikingly illustrated by the fact that about thirty years ago half the irrigated area was watered from wells.

The revenue of the pargana now stands at Rs. 2,54,730, being at the rate of Rs. 2-13-3 per acre of cultivation. In 1840 the

Next to them come the Gujars and Ahirs, while the Musalmans, Brahmans, Rajputs and Tagas are decidedly in the background. There are large numbers of Chamars, who chiefly occupy the position of hired field labourers.

The total population of the pargana at the census of 1901 numbered 130,011 persons, of whom 69,049 were males and 60,962 females. Classified according to religions there were 106,789 Hindus, 20,241 Musalmans and 2,981 of other religions, the great majority of whom are Saraugi Jains. In 1872 the total was 108,168 persons, and since that time the increase has been steadily maintained, the growth being most rapid during the last ten years.

Prior to 1841 the pargana contained 165 villages, of which ten were revenue-free. In the succeeding twelve years eight villages were added and 26 transferred, leaving 147 villages. These have now been demarcated as 136 villages, many of which are of great size—a noticeable feature of the pargana and indeed of the whole tahsíl. Besides the notified area of Baghpat and the Act XX town of Khekra, both of which are important exporting centres for grain, there are no less than 15 villages with a population of over 2,000; the chief of these are Daula, Dhakauli, Aminnagar (where there is a considerable market), Singauli, Tatiri, Khatta-Pahladpur, Baleni and Katha. In almost all of these there are small bazárs for the disposal of local produce.

Although possessing no railway, the pargana is well provided with means of communication. An important metalled road leads from Meerut to Baghpat, where it crosses the river by a bridge of boats on the way to Dehli entering the pargana at Baleni on the Hindan and traversing the villages of Singauli, Daula and Tatiri. The Hindan is crossed by a bridge of boats, which is replaced by a ferry during the rains. An unmetalled road takes off this road at Daulá, leading in a north-easterly direction through Aminnagar to Sardhana. A second branch leaves it at Baleni and goes south-east to Begamabad and Hapur. From Baghpat unmetalled roads go northwards to Kutana and Baraut; while a third leads south to Loni and Shahdara, with a branch taking off at Katha to Khekra, and a fourth runs south-

east crossing the Jumna canal at Khatta-Pahladpur and continues through Dhakauli and Chamrawal to Muradnagar on the metalled road from Meerut to Ghaziabad.

There are post-offices at Baghpat, Baleni, Daula, Khekra and Katha, and canal bungalows at Daula and Fakhrpur.

BAGHPAT *Tahsíl.*

This subdivision comprises the four parganas of Baghpat, Baraut, Kutana and Chaprauli, all of which have been separately described in detail, with a full account of their physical characteristics, revenue and agriculture. The tahsíl is a long and narrow tract lying along the left bank of the Jumna river, wider in the south than in the north, extending in pargana Baghpat as far east as the Hindan river. Down the centre passes the Eastern Jumna Canal. It contains the two notified areas of Baghpat and Baraut as well as the Act XX towns of Chaprauli, Kutana, Khekra and Aminnagar; it also contains a great number of large villages, the presence of which is a peculiar feature of the tahsíl. Most of these have also been given separate articles. The tahsíl is administered as a subdivision of the district in the charge of a full-powered officer on the district staff, assisted by the tahsíldár of Baghpat. For the purposes of police administration there are police-stations at Baghpat, Baraut, Chaprauli, Khekra and Baleni.

The tahsíl possesses no railway and only one metalled road which runs from Baghpat to Meerut through Baleni. From this road two unmetalled branches take off, one leading from Daula to Aminnagar and Sardhana, and the other from Baleni to Begamabad and Hapur. From Baghpat unmetalled roads lead south to Loni and Ghaziabad, with a branch leading from Katha to Khekra, south-east to Muradnagar, north to Baraut and Shamli in Muzaffarnagar and north-west to Kutana. From Baraut roads run east to Binauli in pargana Barnawa, west to Kutana and north-west to Tanda. A small road runs from Tanda to Lumb and Kirthal in pargana Chaprauli. There are canal bungalows at Hilalpur and Chaprauli in pargana Chaprauli, at Baraut and Ramala in pargana Baraut, at Kutana and at Daula and Fakhrpur in pargana Baghpat. There are post-offices at all the police-stations and at Daula and Katha.

The total population of the tahsíl at the last census of 1901 numbered 297,506 persons, of whom 159,617 were males and 137,889 females. Classified according to religions there were 241,814 Hindus, 46,293 Musalmans, 7,311 Jains, 1,211 Aryas, 875 Christians and two Sikhs. Among the Hindus, Jats very largely predominate, being nearly one-quarter of the whole population. They number 56,410, while next to them come Chamars, numbering 38,311; Brahmans, 28,168; Bhangis, 13,401; Kahars, 12,207; Gujars, 11,367; Banias, 10,000 and Rajputs, 9,582. The last-mentioned are chiefly of the Chauhan and Jadon clans, while there are also fair numbers of Panwars, Kachhwahas and Tomars. Other numerous castes are Ahirs, Kumars, Tagas and Hindu Julahas. Among the Musalmans, Sheikhs predominate, followed by Julahas, Telis and converted Jats. The population is chiefly agricultural, and there are no special trades or manufactures peculiar to the tahsíl. The chief products are grain, cotton and sugar, and a considerable number of persons are engaged in commerce with the neighbouring large markets of Dehli and Meerut. Among the minor occupations the best represented are wood-work, pottery, iron-work and oil-pressing. The number of beggars is very large, amounting to 7,363—a higher figure than is to be found in any other tahsíl of the district.

BAHADURGARH, *Pargana* PUTH, *Tahsíl* HAPUR.

A village in the south-eastern corner of the district on a small branch road leading from Garhmuktesar, at a distance of 32 miles from Meerut, and situated in latitude 28° 40′ north and longitude 78° 7′ east. It contains a third class police-station, a post-office and a village school. The village lands are watered by the Bahadurgarh distributary of the Anupshahr Canal; a short distance to the south runs the Siyana escape, which leads into the Ganges. A market is held here, and ornamental pottery, similar to that made at Bulandshahr, is here manufactured. The village is the original home of the Khurja ware, and a very large proportion of the articles sold as having been made at Bulandshahr are really products of Bahadurgarh. The value of the exports must be considerable, as three or four workers pay income-tax. The industry was introduced from Multan about 200

years, ago, and has remained ever since in the hands of a few Muhammadan families. The pottery resembles that of Multan and is properly a faience, having a red earthen body covered with an opaque white enamel in which flint is a large ingredient, and painted chiefly in dark blue and turquoise, but sometimes in claret or yellow.

Bahadurgarh contained in 1901 a population of 3,191 inhabitants, of whom 1,023 were Musalmans. In 1865 the population was 2,353. The village was bestowed by Jahangir on Nawab Bahadur Khan, a Pathan, who changed the name from Garh Nana to Bahadurgarh. It was the head of a circle of 12 villages, and it is still held by Pathans—a quarrelsome lot, who have sometimes compelled the authorities to take the village under direct management.

BAHSUMA, *Pargana* HASTINAPUR, *Tahsil* MAWANA.

A large village on the road from Meerut to Bijnor, situated in latitude 29° 12′ north and longitude 77° 59′ east, at a distance of 23 miles from the district headquarters. Another small road leads south to Mawana. It contains a third class police-station, a post-office and a village school. A market is held on Tuesdays in every week. It is on the route from Meerut to Bijnor, but there is no regular encamping-ground. According to tradition the place was one of the muhallas of Hastinapur, in which the Vaishyas were located. In more recent times it was of some importance as being one of the headquarters of the government of the Gujar Raja, Nain Singh of Parichhatgarh. There is a house of the Raja here and a fort built by him. The place was formerly noted for the saddlery made here; but the trade has declined of late, and there is only one family of saddlers left. Very few saddles are now made as the people prefer cheaper ones made in Meerut, Cawnpore and elsewhere. The population at the last census of 1901 amounted to 4,507 persons, of whom 3,822 were Hindus, 650 Musalmans and 35 of other religions, chiefly Jains. Chamars are the most numerous Hindu caste. Bahsuma is administered as a town under Act XX of 1856, and in 1901 out of 1,729 houses 1,080 were assessed to taxation, yielding Rs. 908, with an incidence of Re. 0-13-8 per assessed house and Re. 0-3-5 per head of population. The total income for the year, inclusive

of a balance of Rs. 212 from the preceding year, amounted to Rs. 1,286. The expenditure for the same year reached to a total of Rs. 1,045, of which Rs. 483 were devoted to the up-keep of the town police, which consists of seven men of all grades.

BAJHERA, *Pargana* DASNA, *Tahsīl* GHAZIABAD.

A village in the south-eastern corner of the pargana, situated in latitude 28° 36′ north and longitude 77° 44′ east, at a distance of five miles from Dhaulana, and a little to the south of the road leading from Dasna to Gulaothi in Bulandshahr. Its full name is Bajhera-Kalan, to distinguish it from Bajhera-Khurd, a smaller village adjoining Dhaulana on the north. It contains a population of 3,429 persons, of whom 2,688 are Musalmans. The majority of the inhabitants are Rajputs of Pundir clan, who were converted to Islam in the reign of Aurangzeb. They were formerly the proprietors of the village, but their property was confiscated after the mutiny and sold to Mr. Michel, who originally held nine villages in this pargana, but this property has now passed into the hands of Mr. Jackson of Lucknow, under the terms of a mortgage. A small portion belongs to the Skinner family of Bulandshahr. The village lands are watered by the left Dasna distributary of the Ganges canal, which passes a short distance to the east, between Bajhera and Sapnawat.

BAKSAR, *Pargana* GARHMUKTESAR, *Tahsīl* HAPUR.

Baksar or Bagsar, also known as Bazár Gangadharpur, is a village on the road from Hapur to Garhmuktesar. It is situated in latitude 28° 46′ north and longitude 78° 1′ east, at a distance of seven miles from the latter and 23 miles from Meerut. There is a station here about a mile west of the village, on the Oudh and Rohilkhand Railway from Moradabad to Dehli. The village lies on the left bank of the Fatehgarh branch of the Ganges canal. It contained in 1901 a population of 2,077 inhabitants, of whom 568 were Musalmans. There is a police-station, a canal bungalow, a post-office and a village school here. In the village there is a colony of Nanakshahi faqirs, who hold a revenue-free grant of 141 acres, as well as in four other villages of the district. They have held the muáfi here since the days of

Alamgir II. The faqirs are celibates and are governed by a Mahant, who nominates his successor. They recruit from Brahmans, Khattris, Jats, Banias and Kayasths. Their teaching is on the lines of the *granth*, the bible of the Sikhs. They wear no distinguishing marks, but high-peaked caps and a necklace or *saili*. The rest of the village belongs to Banias.

BALENI, *Pargana and Tahsil* BAGHPAT.

A village lying in latitude 28° 57′ north and longitude 77° 28′ east, near the right bank of the Hindan river on the south side of the metalled road from Meerut to Baghpat, at a distance of 16 miles from Meerut. There is a third-class police-station, a post-office and a ferry over the Hindan here. The population of the place at the last census numbered 2,273 persons, of whom 199 were Musalmans. There are two villages of this name, Baleni-Khas and Aminpur Baleni. The latter is the larger and lies to the north of Baleni Khas. Ahirs form the bulk of the population and are the owners of the two villages. The name Baleni is said to be derived from the sage Valmiki, whose asthana was in this place when a jungle. The reputed locality is now occupied by a small modern temple. Baleni Khas is surrounded by high brick walls, a relic of the days preceding the British conquest.

BAMNAULI, *Pargana* BARNAWA, *Tahsil* SARDHANA.

A very large village, in latitude 29° 9′ north and longitude 77° 22′ east, on the high left bank above the Kirsani Nadi, at a distance of six miles from Barnawa and 19 miles from Meerut. It contains a population of 5,014 persons, of whom 4,239 are Hindus, 343 Musalmans and 504 Jains. Jats are the prevailing Hindu caste and are the owners of this village and several others in the neighbourhood. There is a village school here. The present place is said to be over 500 years old. Round about it there are several *kheras* or hillocks, one of which is called Budhi Bamnauli and is said to have been founded by Ram Das, a Brahman, ancestor of some of the present inhabitants. Others are the Karal, Kandhaura and Hariyati *tilas*, regarding none of which anything is known.

The Marka hillock was, according to the tradition, erected to commemorate a great fight between the Jats of Baraut and Doghat. It covers an area of seven bighas. The remaining *tilas* are the Dherwa and the Bhaironwala, the latter deriving its name from Bhairon, a Jogi.

BAOLI, *Pargana* BARAUT, *Tahsíl* BAGHPAT.

A very large village situated in latitude 29° 8′ north and longitude 77° 17′ east, on the western bank of the Jumna Canal near the road from Baraut to Asara, at a distance of three miles north of Baraut and 32 miles from Meerut. The present inhabited site consists of three contiguous villages, Baoli, Muhabbatpur and Rustampur, with a total population in 1901 of 6,710 persons, of whom 5,927 are Hindus, 818 Musalmans and 265 Jains. The land is nearly all held by Jats, who form the bulk of the population. There is a small bazár here and the iron-workers of Baoli have some local celebrity. The whole village was confiscated after the mutiny, but was subsequently given back on payment of a sum equal to eight times the rent-roll. There is a primary school here.

BARAUT, *Pargana* BARAUT, *Tahsíl* BAGHPAT.

The chief town of the pargana of the same name lies in north latitude 29° 6′ and east longitude 77° 16′, at a distance of 27 miles from Meerut, with which it is connected by an unmetalled road leading through Binauli. At right angles to this runs a second road leading from Baghpat to Shamli in Muzaffarnagar. Other roads lead to Kutana on the bank of the Jumna and Tanda. To the west of the town runs the Eastern Jumna Canal, from which a number of distributaries take off. The main canal runs through the middle of the town lands, forming the western boundary of the town itself and giving off the Rarau and Sheikhupur distributaries on the west. To the north and east of the site the Miranpur distributary flows until it joins the Halwari distributary on the south, whilst the Bauli rajbaha runs south from the Baraut canal bridge to join the Alawalpur rajbaha. Owing to this complicated canal system the natural line of drainage has been impeded, the result being

over-saturation of the soil. Since the construction of the canal the water-level has largely risen and the place has become very unhealthy. Owing to the prevalence of fever, irrigation was prohibited in the vicinity of the town some ten years ago, and the prohibition is still in force, with the result that the general health has considerably improved of late years.

Entering the town on the south by the principal road one passes through the shoemakers' quarter to a ruined gateway beyond which the road divides into two streets. That to the left is of little importance: it possesses no shops and leads to the grain market. The street to the right is the principal bazár and is paved with bricks with a drain running down the centre and leads to the old market. Along this there are two old sarais built of mud. The two markets are joined by a small bazár and a road running westwards connects the grain market with the old fort, now occupied as a police-station.

From the canal a metalled circular road winds by the north-eastern and south sides of the town, and near the eastern portion of this road a new bazár has been constructed with shops and a double row of trees and is connected with the old bazár by a short line of road. Besides the police-station the town possesses a post-office, cattle-pound, a middle vernacular school aided from the town funds and attended by 138 pupils, and four indigenous schools with 143 scholars on the roll. There is one fine Hindu temple and a good Jain temple here. The place is noticeable for the manufacture of buckets and cauldrons of iron. There was formerly a large trade in ghí and safflower or *kusum*, but this has largely declined of late years. The town is divided into three pattis, and a large portion still belongs to the Jats. The lands of certain Jats were confiscated after the mutiny and purchased by the Afghán, Jan Fishan Khan of Sardhana. The value of the property has much decreased in the hands of his descendants through the ruthless felling of trees, and part of it has recently passed into the hands of others.

The population of Baraut in 1901 numbered 7,703 persons, of whom 4,258 were males and 3,445 females. Classified according to religions there were 4,442 Hindus, 2,157 Musalmans, 1,032 Jains, 18 Christians and 54 Aryas and Sikhs. The place

was formerly a municipality, having been thus constituted in 1870. In March, 1904, it was made into a notified area under section 193 of Act I of 1900, and is now administered by a committee composed of the tahsíldár of Baghpat and three native gentlemen. The octroi tax was abolished and its place taken by assessed taxes. Although the death-rate is still high, the sanitary condition of the town has greatly improved of late years, but the drainage of the outskirts is necessarily defective. Details as to the income and expenditure since 1891 will be found in the appendix.*

BARAUT *Pargana, Tahsíl* BAGHPAT.

This pargana comprises the eastern portion of the northern half of the tahsíl. To the west lie the parganas of Chaprauli and Kutana, to the south Baghpat pargana, to the east pargana Barnawa of the Sardhana tahsíl, and to the north the Muzaffarnagar district. Along and close to the western boundary flows the Eastern Jumna Canal, while the northern half of the eastern boundary is formed by the Kirsani, a tributary of the Hindan which it joins at Barnawa.

Baraut enjoys the reputation of being the richest pargana of the district. It has no bad tracts, but certain portions, especially in the neighbourhood of Ramala and Sup in the north, are liable to damage from floods in wet seasons. A good deal has been done, however, to prevent this by the canal authorities by means of drains and by correcting the alignment of the distributaries and channels. In ordinary seasons, however, excellent crops are raised everywhere. Except for seven villages along the Kirsani, where the land contains a large amount of sand and the surface is broken by ravines, the soil of the pargana is a rich dark loam of exceeding fertility. There is a depressed area in the south-west of the pargana which comprises six villages and extends northwards in a less marked degree.

The total area of the pargana is 48,724 acres or 76 square miles. Of this as much as 42,235 acres or 86 per cent. are cultivated, while only 2,406 acres are barren. The grove area is small, amounting to only 468 acres or less than one per cent. It will

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* Appendix, Table XVI.

thus appear that the pargana is very fully developed, as very little land remains which could possibly be brought under the plough, and even this consists of very poor sandy soil which, for practical purposes, is beyond the reach of cultivation. About 30 per cent., or 15,808 acres, of the cultivated area bears a double crop. The chief staples are juar, maize and rice in the kharíf, with a very large amount of sugarcane and a fair proportion of cotton. In the rabi wheat very largely predominates, followed by gram and peas. These constitute the bulk of the harvest, and the area under garden crops is very small.

Means of irrigation are abundant. In the year of settlement as much as 33,984 acres were artificially watered, but the area varies, of course, with the nature of the rainfall of each year. In 1308 Fasli, the irrigated area was in all 22,123 acres, of which 19,203 acres was from canals, 2,849 acres from wells, and 71 acres from other sources. The capabilities of the pargana for well irrigation are excellent, but many wells fell into disuse after the construction of the canal.

The revenue of the pargana now stands at Rs. 160,935, being at the rate of Rs. 3-14-8 per acre of cultivation, the highest incidence in the district. The demand fixed by Mr. Plowden in 1840 was Rs. 1,07,478, and this rose to Rs. 1,15,400 at Mr. Forbes' settlement of 1866. The present enhancement is therefore at the rate of 28·8 per cent., and is calculated at 48·35 per cent. of the net assets. The pargana consists of 52 villages in all, and of these 21 are absolutely of the first class. They are free from waterlogging and lightness of soil and all difficulties about irrigation. Of the remainder, four villages along the Kirsani are physically precarious and were classed separately at the settlement. The intermediate circle of 26 villages consist of the remaining villages in the neighbourhood of the Kirsani, the villages in the depression in the south-west corner referred to above, and a few villages in the centre of the pargana which are marked by a belt of lighter soil. The rents vary according to these three circles; they are everywhere high, ranging from Rs. 9-6-4 to Rs. 6 per acre in the first circle, and from Rs. 7 to Rs. 2-6-4 per acre in the precarious villages.

The commonest tenure is bhaiyachara, which prevails over nearly 66 per cent. of the whole area. Next comes joint zamindari with nearly 20 per cent., and imperfect pattidari with somewhat over nine per cent. There is very little single zamindari, and still less perfect pattidari; more than half the pargana belongs to the Jats, whose tenure is almost exclusively bhaiyachara. The Nawabs of Sardhana hold six villages and a few shares; the remnant of the Begam's estate and a few mahals belong to the Puech family. The remaining landholders are chiefly Brahmans, Musalmans and Saraugis. The zamindars are the chief cultivators also, and till nearly half the land themselves. Occupancy tenants are comparatively scarce, holding 6,248 acres only. The Jats come first, both in numbers and excellence. The Rawas are equally good cultivators, but are only found in a few villages. Chamars are numerous and are hard-working husbandmen. Of the rest, who are of all castes, the chief are Brahmans, Gujars, Musalmans and Ahirs.

The total population of the pargana in 1901 numbered 68,035 persons, of whom 37,198 were males and 30,837 females. Classified according to religions there were 52,053 Hindus, 13,066 Musalmans and 2,916 others, chiefly Saraugi Jains. In 1872 the total was 56,240, rising to 59,169 in 1881 and 59,828 in 1891.

The largest place in the pargana is the town of Baraut, which is a large exporting centre for grain. Many of the villages are of large size, the chief being Baoli, Bijraul and Asara, each of which are separately mentioned. Means of communication are poor, none of the roads being metalled, except within the limits of the Baraut notified area. An unmetalled road leads from Baghpat to Baraut and on through Asara in the north to Kandhla in Muzaffarnagar. From Baraut a road goes east to Binauli, where it divides into two, one going to Sardhana and the other to Meerut. On the west two small roads run from Baraut to Kutana and Chaprauli.

BARNAWA, *Pargana* BARNAWA, *Tahsil* SARDHANA.

This village, which gives its name to the pargana, lies in latitude 29° 7′ north and longitude 77° 26′ east, on the right bank

of the Hindan river just above its junction with the Kirsani. It stands on a raised site on the sandy bank above the Hindan, which is cut up by many ravines. Through it passes the road from Binauli and Baraut, the distance to Sardhana being eleven miles and to Meerut 19 miles. The bed of the river is broad and sandy and is free from quicksands. The place contains several masonry wells, but the drinking water within the town is brackish and bad. The place is now in a decaying state. The population at the last census numbered 2,641 persons, of whom 1,020 were Hindus, 1,363 Musalmans and 258 Jains. It was formerly administered under Act XX of 1856, but the operations of the Act have been recently withdrawn. The place is said to have been founded by Raja Ahibaran at a very early period. According to one tradition it was an outlying fortress of Hastinapur. To the south of the town there is a *khera* known as the Lakha Mandap, about 100 feet high and 30 acres in extent. Some say that this was the real scene of the attempt to burn the Pandavas in the house made of wax, which the Mahabharata places at Váranávata.* On the top of this *khera* there are dargahs of Badr-ud-din Shah and Shah Ala-ud-din or Makhdum Shah, built in 1062 Hijri, as recorded in two inscriptions. In one of the walls of the dargahs of Makhdum Shah there is an old Sanskrit inscription which is unfortunately defaced; it belongs no doubt originally to the old Hindu temple destroyed by the Musalmans. There are also numerous tombs belonging to the family of the proprietors of Sheikhupur. Over the door of the maqbara of Pir Sarwar there is a long Persian inscription, dated 948 Hijri, engraved on nine marble slabs which have been taken from the shrine of Badr-ud-din Shah. A religious fair is held here annually in the hot weather, and is known as the Mela Urs Chishti Ala-ud-din.

Barnawa was the headquarters of a tahsíl of the Begam Somru, and at her death was made subsidiary to Baraut and after that to Sardhana. The fort belonging to the Begam was sold by Government about 30 years ago; it was built about 1802 of burnt brick. The place at one time belonged to the Tagas, but now Moghuls and Afghans also have a share.

* *Vide supra*, p. 148.

BARNAWA *Pargana, Tahsíl* GHAZIABAD.

This pargana forms the western half of the tahsíl, being separated by the river Hindan from pargana Sardhana, which with Meerut forms the eastern boundary. To the north lies the Muzaffarnagar district, to the west Baraut pargana, and to the south pargana Baghpat. The Hindan is joined by the Kirsani a little below the village of Barnawa. This stream for some distance forms the boundary between this pargana and Baraut, and then turning in a south-easterly direction divides the pargana into two portions traversing its whole breadth. Both these rivers are fringed with ravines throughout their course, and the northern portion is further intersected by a small stream called the Banganga and by a line of depression which terminates in a series of ravines before joining the Hindan. In spite of this, however, the tract consists for the most part of large and flourishing villages. The greater part of this northern portion is taken up by the Chaugaon, a tract consisting of four enormous villages, Tikri, Nirpura, Daha and Doghat. To the south of the Kirsani the land is more level, and some of the villages are as good as any in Sardhana, although, generally speaking, the northern villages are perhaps superior. The khadir of the two rivers is narrow and poor, the soil being sandy and in some cases injured by *reh*. Between the khadir and uplands lie a wider belt of broken ground occupied chiefly by village sites.

The total area of the pargana is 72,886 acres or nearly 114 square miles. Of this 58,256 acres or 79 per cent. are cultivated, while 7,656 acres are barren, being either covered with water or too poor and sandy to admit of cultivation, or else occupied by village sites. In ordinary years the rabi and kharíf harvests cover approximately an equal area, while about 20 per cent. bears a double crop. The principal staples in the rabi are wheat, gram and peas, which cover almost the entire sown area, while in the kharíf juar largely predominates, followed by sugarcane and a small proportion of maize, cotton and rice. The tract north of the Kirsani is beyond the reach of canal irrigation and consequently wells are more numerous here than in Sardhana. The total irrigated area in 1308 Fasli was 12,653 acres, of which 9,591 acres were watered from wells, while 2,948

acres from canal and 114 acres from other sources. Unprotected wells can be sunk almost everywhere, but they have been to some extent replaced by masonry wells, which are more remunerative. The canal water is brought from the Eastern Jumna Canal in Baraut pargana and is only available for a few villages.

The revenue now stands at Rs. 1,72,615, being at the rate of Rs. 3-1-4 per acre of cultivation, and calculated at 47·91 per cent. of the net assets. Like Sardhana, the pargana formed a portion of the estate of Begam Somru, an account of whose administration is given in the article on that pargana. At Mr. Plowden's settlement of 1840 the demand was Rs. 1,20,795, which was increased in 1866 to Rs. 1,28,950, the present enhancement being as much as 33·5 per cent. Rents in this pargana range considerably higher than in Sardhana, apparently owing to competition. The average rental for tenants-at-will varies from Rs. 17-1-3 per acre of the best land to Rs. 3-7-11 per acre of the worst *bhur*. Almost the whole pargana is held on bhaiyachara tenure; there are seven small estates held in single zamindari, but the other forms of tenure are almost unknown. The Jats are the owners of the Chaugaon and the greater part of the remainder. In the south a few villages belong to Rawas, while there are one or two Tagas, Musalmans, Gujars and Rajputs. The only zamindari villages are those which were confiscated for rebellion during the mutiny. The village proprietors are also the chief cultivators, the Jats coming easily first; following them are Brahmans, Rajputs, Chamars, Kahars, Musalmans and Tagas.

The total population of the pargana at the last census numbered 80,610 persons, of whom 43,145 were males and 37,465 females. Classified according to religions there were 63,820 Hindus, 12,322 Musalmans and 4,468 others, nearly all of whom are Saraugi Jains. In 1872 the total was 64,997 souls, which shows an extremely rapid development during the last thirty years. There is no town, properly speaking, in the pargana, but the number of large villages is surprising. Taken in order of population, the most important are the four villages of the Chaugaon, Bamnauli, Bijwara, Ranchhar and Barnawa.

The pargana is very poorly provided with means of communication, as it has neither railway nor metalled road. Two unmetalled roads lead from Sardhana and Meerut to Binauli, where they unite and continue west to Baraut, but with this exception the only other road in the pargana is that from Meerut to Shamli in Muzaffarnagar, which just touches the extreme north-eastern corner.

BEGAMABAD, *Pargana* JALALABAD, *Tahsíl* GHAZIABAD.

A small town on the metalled road from Meerut to Dehli, situated in latitude 28° 50′ north and longitude 77° 35′ east, at a distance of 28 miles from Dehli and 14 miles from Meerut. A cross-road leading from Baleni to Hapur passes through the town. There is a station here on the North-Western Railway which runs parallel to the Dehli road. It contains a population of 3,181 inhabitants, according to the returns of the 1901 census. Of these 2,699 were Hindus, 454 Musalmans and 28 Aryas. It possesses a first-class police-station, post and telegraph offices, an inspection bungalow, school, bazár, and a large military encamping-ground near the railway station. The town was till recently administered under Act XX of 1856. It was founded by one Nawab Zafar Ali, who purchased the site. The place was subsequently obtained by Jats, who built a second village to the east of Zafar Ali's site and called it Budhana. From the Jats the lands passed into the hands of a lady of the Dehli royal family, who called the place Begamabad. There is a temple built by Rani Bala Bai of Gwalior, and the ruins of a fine mosque erected by Zafar Ali just outside the town. The place now belongs to a body of Jats, who hold it on bhaiyachara tenure.

BIJRAUL, *Pargana* BARAUT, *Tahsíl* BAGHPAT.

A large village situated, in 29° 7′ north latitude and 77° 19′ east longitude, on the eastern borders of the pargana, about four miles north-east of Baraut and 27 miles from Meerut. The village lands are watered from the Bijwara and Kishanpur rajbahas of the Jumna Canal. Two miles to the south of Bijraul runs the road from Sardhana to Baraut. It contained in 1901 a

population of 4,079 persons, of whom 561 were Musalmans and 212 Jains. The Afghan family of Sardhana are the largest shareholders. At the time of the mutiny more than half the village belonged to Sah Mal, the notorious Jat rebel, and his adherents. This property was confiscated and purchased by Jan Fishan Khan, Afghan of Sardhana, and Nawab Muzaffar Ali of Dehli. There is a primary school in the village. Reference will be found in Chapter V to the doings of Sah Mal and his Jats during the mutiny. Their action resulted in the confiscation of Baoli and several other villages besides Bijraul, and they were the only members of the Jat caste that took a decidedly active part against the British Government.

BIJWARA, *Pargana* BARNAWA, *Tahsil* SARDHANA.

A large village in the south-west of the pargana, situated in latitude 29° 5′ north and longitude 77° 23′ east, a short distance south of the road from Sardhana to Baraut, three miles south-west from Binauli and 23 miles from Meerut. It contains a population of 3,961 persons, most of whom are Jats. It is said to be over 500 years old and belonged to Jats, but they sided with Sah Mal of Bijraul, and after the mutiny it was confiscated and bestowed by Government on Wilayat Husain Khan, son of Taj-ud-din Hasan Khan, wazir of the Nawab of Lucknow. It now belongs to Musammat Amin-un-nisa, the daughter of Wilayat Husain Khan, who resides in Karbala in Arabia. The management is in the hands of her agent. There is a primary school in the village. The lands are watered by the Bijwara and Baraut distributaries of the Jumna canal, which unite to the south-east of the village; close to the junction is an inspection bungalow.

BINAULI, *Pargana* BARNAWA, *Tahsil* SARDHANA.

A small town, in latitude 29° 6′ north and longitude 77° 25′ east, on the road from Sardhana to Baraut, which is here joined by another unmetalled road from Meerut, which lies at a distance of 19 miles. It stands on the high land above the Hindan river west of the point of junction with the Kirsani. The soil is sandy with an admixture of clay. It contained in

1901 a population of 2,436 persons, of whom 1,626 were Hindus, 306 Musalmans and 504 Jains; the latter are Saraugi Banias and are the chief residents. It possesses a third class police-station, a post-office and a school. The police-station is located in the sarai, a brick-built structure which was erected about 180 years ago with a fine red brick entrance gateway. The town was formerly administered under Act XX of 1856, but the operations of the Act have recently been withdrawn.

CHANDLAWAD, *Pargana* KITHOR, *Tahsíl* MAWANA.

Chandlawad or Mahalwala is a village in the south of the pargana whose lands adjoin those of Kithor and Sháhjahánpur. It lies, in latitude 28° 53' north and longitude 77° 59′ east, about two miles north-east of Kithor and 17 miles from Meerut by the metalled road to Garhmuktesar. To the west of the village runs the Fatehgarh branch of the Ganges canal. A market is held here on Wednesdays in each week. The population in 1901 numbered 2,632 persons, of whom 463 were Musalmans and 68 Aryas. The Hindus are mostly Tagas, who are the proprietors. The name Mahalwala is derived from the palace or mahal built by the diwan of the Gujar Raja, Nain Singh of Parichhatgarh. There is a Government village school here.

CHAPRAULI, *Pargana* CHAPRAULI, *Tahsíl* BAGHPAT.

The capital of the pargana is a large village on the unmetalled road from Baraut to Tanda, situated, in 29° 12′ north latitude and 77° 11′ east longitude, at a distance of 35 miles from Meerut. It consists of five pattis, Dhaknausya, Chandoian, Dhadan-Tilwara, Bhauála and Jagmalán. The bazár consists of two narrow unmetalled streets which cross one another at right angles to form a chauk. There is also a small row of shops called the Naya Bazár, and a small market-place and sarai. The site is fairly raised and the natural drainage is good. On the west the village lands slope down to the bed of the Jumna. Chaprauli is a rising place with a considerable export trade in wheat and sugar, which has considerably increased of late years. The market day is Tuesday. There is a third-class police-station here, and also a post-office and village school. The population in

1901 numbered 7,058 persons, of whom 5,532 were Hindus, 1,043 Musalmans and 483 Jains, Sikhs and Christians. Jats own the place and are the most numerous inhabitants. The Jains are Saraugi Banias and are people of some wealth; but the inhabitants are generally quarrelsome and intriguing. The Jats are said to have colonized the place about 1100 years ago. At a more recent period they received amongst them the Jats of Mirpur, who had been almost ruined by the incursions of the Sikhs, and since then the town has increased in numbers and prosperity. It is now administered under Act XX of 1856, and in 1901 the income from all sources, including a balance of Rs. 601 from the preceding year, amounted to Rs. 2,781. There were 2,223 houses in the town, of which 1,275 were assessed, the income from the house-tax being Rs. 1,389, with an incidence of Re. 1-1-7 per assessed house and Re. 0-3-10 per head of population. The expenditure for the same year amounted to Rs. 2,160, of which Rs. 595 were devoted to the up-keep of the police, a force consisting of eleven men of all grades, Rs. 600 to conservancy and Rs. 693 to local improvements.

CHAPRAULI *Pargana, Tahsîl* BAGHPAT.

This pargana occupies the extreme north-western corner of the district, being bounded on the west by the Jumna and on the north by the Muzaffarnagar district. To the east lies Baraut and to the south Kutana. It has a total area of 38,384 acres or 58 square miles. With the exception of five villages lying along the Jumna on the edge of the high cliff above the river where the soil is sandy and poor, the entire pargana consists of a rich black loam of great fertility which produces fine crops of wheat and sugarcane. Along the eastern boundary passes the Eastern Jumna Canal from which numerous distributaries traverse almost the whole area. The land under cultivation in 1308 Fasli amounted to 30,317 acres or 79 per cent. of the whole, and of the remainder 2,296 acres are classed as barren. It will thus be seen that there is very little room for further development. In the same year 16,668 acres were irrigated, of which 14,614 acres were watered from the canal, 2,017 acres from wells, and 37 acres from other sources. In the year of settlement, when the rainfall

was somewhat deficient, almost the whole cultivated area was irrigated. The pargana is thus secure against a failure of the rains, and the only complaints made by the cultivators in this portion of the district is the uncertainty of the canal water supply. If necessary, unprotected wells can be dug almost everywhere and the water is close to the surface. In this pargana the rabi is the principal harvest and is composed almost entirely of wheat, gram and peas. In the kharif sugarcane takes the lead, followed by juar, rice, cotton and maize.

The revenue of the pargana, as fixed at the recent settlement, stands at Rs. 1,09,088, with an incidence of Rs. 3-14-3 per acre of cultivation—a rate that is only second to that of Baraut. At the settlement of 1840 the demand was Rs. 82,801, rising to Rs. 89,725 in 1866. The percentage of enhancement at the recent settlement is thus 23·27 per cent.—a fact which amply demonstrates the mistake made by Mr. Glyn in 1829, who recommended this pargana for a permanent settlement. As, early as 1840 Sir H. M. Elliot found it possible to increase the revenue by Rs. 12,106 or 25 per cent.

Rents range very high in this pargana, the average recorded rental being Rs. 8-10-7 per acre. There are 22 villages in the pargana and of these nine are absolutely first class and free from all defects. The remainder consists of villages with a lighter soil above the Jumna or of low-lying villages in the interior. Almost the whole pargana belongs to the Jats, who cultivate nearly two-thirds themselves. Next to them come Musalmans, Chamars and Brahmans, the first-named being chiefly converted Jats. The tenure is almost exclusively bhaiyachara, over 90 per cent. being thus held. There are five small properties held in single zamindari tenure.

The total population of the pargana at the census of 1901 numbered 45,745 persons, of whom 24,687 were males and 21,058 females. Classified according to religions there are 36,179 Hindus, 7,719 Musalmans, and 1,849 others, Jains, Aryas, Sikhs and Christians. There has been a very large increase during the last forty years, for in 1872 the total was 37,975 persons, rising to 39,709 persons in 1881. The villages, though few in number, are mostly very large. Chaprauli is a considerable town, while

Kirthal, Lumb, Ramala, Rithaura and Kuri all have very large populations. The chief bazár is at Chaprauli, which is an important exporting centre for grain. There are several small bazárs in the larger villages. The pargana is very destitute of roads. From Baraut an unmetalled road leads to Chaprauli and Tanda, a village in the extreme north-west, which was formerly the headquarters of a small pargana that was added to Chaprauli in 1841. Another unmetalled road connects Tanda with Kirthal passing through Lumb. On the eastern side of the canal runs the road from Baraut to Kandhla passing through Ramala and skirting the extreme boundary of the pargana. The only post-office is at Chaprauli. Canal inspection-bungalows have been erected at Chaprauli and Hilalpur.

CHHUR, *Pargana and Tahsíl* SARDHANA.

A large village, in latitude 29° 11′ north and longitude 77° 33′ east, at a distance of somewhat over four miles north-west of Sardhana on the road to Shamli and adjoining Malhera on the east. It is an unimportant place save for the size of its population, which in 1901 numbered 4,014 persons, of whom 3,108 were Hindus, 763 Musalmans and 143 Jains. It belongs to a large body of Jats, who hold the village in bhaiyachara tenure. The village has rather suffered than benefited by the construction of the canal, for the wells have been supplanted and the water-supply is insufficient. In consequence a large reduction had to be made in the revenue of the village by Mr. Porter in his settlement of 1868. There is a Government primary school in the village.

DABATHUA, *Pargana and Tahsíl* SARDHANA.

A village, in latitude 29° 5′ north and longitude 77° 38′ east, on the main road from Meerut to Sardhana, at a distance of nine miles from the district headquarters. Through the village lands, a mile west of the main site, passes the Ganges canal. It is a well-to-do place with a considerable sugar trade carried on by the mahajans of the village, and large quantities of sugar are refined here. The population in 1901 was 3,083 persons, of

whom 190 were Musalmans and 69 Jains. The village belongs to Jats, who are the most numerous inhabitants. It was founded by some Saiyids more than 600 years ago. A deserted site, known as Khera Chauhan, was peopled by the Saiyids with Chauhans, but the colony disappeared about 400 years ago. Then came the Gujars, and after them the Jats, who appropriated both the small villages whose site is now marked by the *khera* and the parent village as well. There is a village school here.

DADRI, *Pargana and Tahsíl* MEERUT.

A village in the extreme north of the pargana on the west side of the road from Meerut to Saharanpur, situated, in latitude 29° 13′ north and longitude 77° 43′ east, at a distance of 16 miles north from Meerut. It contains an outpost of the Daurala police-station and has a population of 1,832 persons, of whom 127 are Musalmans and 34 Sikhs. Gujars are the prevailing Hindu caste. The place was formerly one of the residences of Raja Nain Singh, through the site of whose fort the railway now runs. The village is irrigated by the Daurala distributary of the Ganges canal. There is a Government school here.

DAHA, *Pargana* BARNAWA, *Tahsíl* SÁRDHANA.

A large village in the north of the pargana at a distance of about 23 miles from Meerut and seven miles from Binauli. It contains a third-class police-station, a district post-office and a school. The population of the place at the census of 1901 numbered 4,137 persons, of whom 3,079 were Hindus, 627 Musalmans and 431 Jains. Jats form the bulk of the population and are said to have resided here for over 700 years. They have always been a troublesome and aggressive race and are credited with many acts of violence, among which was the destruction of Talibpur some 200 years ago. Daha was confiscated after the mutiny and held in direct management for 15 or 16 years. In 1875 it was sold to the old zamíndárs for ten times the sum paid as revenue by them. This amounted to Rs. 80,000, the revenue being then fixed at Rs. 8,000. Daha is one of the four enormous Jat villages in the northern half of the pargana that are collectively known as the Chaugaon. It stands,

in latitude 29° 7′ north and longitude 77° 25′ east, on a small unmetalled road that runs from Ranchhar on the Kirsani to join the Shamli road at Bitaoda in Muzaffarnagar.

DASNA, *Pargana* DASNA, *Tahsíl* GHAZIABAD.

The pargana capital is a small town situated, in latitude 28° 41′ north and longitude 77° 31′ east, to the south of the metalled road from Ghaziabad to Hapur and Garhmuktesar, at a distance of six miles from Gháziabad and 23 miles from Meerut. A branch road takes off close to Dasna leading to Dhaulana and joins the road from Meerut and Hapur to Bulandshahr at Gulaothi. Two miles to the east flows the Ganges canal, and the lands of Dasna are irrigated by a channel from the right Dasna distributary. The town is said to have been founded by Raja Salarsi, a Rajput in the days of Mahmud of Ghazni. It was ravaged in 1760 in the great irruption of Ahmad Shah Abdali, who pulled down the large fort. A religious fair is held here at the Muharram in honour of Sheikh Allahdiya Makhdum Shah Wilayat. Another small fair takes place here twice a year at the temple of Debi. The town contains a post-office, a canal bungalow and a school. At the adjoining village of Masuri, two miles to the north-east, there is a large indigo factory belonging to Mr. Michel, who owns much of the land in the neighbourhood, and has constructed a metalled road leading from the factory to the Gháziabad-Hapur main road. A Roman Catholic Mission was started here a few years ago.

Dasna is a decaying town, the houses being in a ruinous condition and the population dwindling. The number of inhabitants in 1901 was 4,750, of whom 2,159 were Hindus, 2,531 Musalmans and 60 Jains and Christians. In 1872 the population was 5,605. The town is administered under Act XX of 1856, and in 1901 there were 695 houses assessed out of a total of 1,110. The house-tax yielded Rs. 1,044, with an incidence of Re. 1-8-1 per assessed house and Re. 0-4-0 per head of population. The total income, including a balance of Rs. 164 from the preceding year, was Rs. 1,290. The expenditure for the same year was Rs. 1,097, of which Rs. 597 were devoted

to the upkeep of the town police, consisting of a force of ten men of all grades, and Rs. 240 to conservancy.

DASNA *Pargana, Tahsíl* GHAZIABAD.

This pargana lies along the southern borders of the district, between Hapur on the east and Loni on the west. To the north lies the pargana of Jalalabad, and to the south the district of Bulandshahr. It has a total area of 868,488 acres or 137 square miles. The surface of the pargana is somewhat uneven. Along the Loni border and in the neighbourhood of the town of Ghâziabad the land lies high, overlooking the Hindan. Between this high belt and the Ganges canal, which divides the pargana into two almost equal portions, there is a marked depression with a large uncultivated area in the neighbourhood of Dasna town and a few of the adjacent villages. Beyond this there is a higher strip of land along which the canal has been carried. To the east of the canal there is another more extensive depression, which terminates in the rising land along the eastern border in the direction of Hapur. This large depression on the east is a continuation of that which traverses the whole district beginning in the south-east corner of pargana Sardhana. The tract is peculiarly liable to damage from saturation, and in fact there has been a considerable amount of deterioration during the last thirty years. The remainder of the pargana calls for a little remark. There is very little *bhur* and most of the villages are of a good quality. The soil consists for the most part of a firm clay, which though fertile when watered is almost unworkable when dry; but as a matter of fact the heavier soils are with very few exceptions all irrigable. Dasna has aptly been described as a good pargana badly situated. Of the total area 63,640 acres or 73 per cent. were cultivated in 1308 Fasli, which shows a considerable increase during a few years that have elapsed since the settlement. The barren area, however, is considerable, amounting to 13,819 acres. The principal harvest is the rabi, while 26,418 acres bear a double crop. The chief staples are wheat, gram, peas and barley, with a fair proportion of garden cultivation in the rabi, and juar, maize, cotton and indigo in the kharíf. The sugarcane area is unusually small, although the

soil appears admirably adapted for this crop; the apparent reason is that indigo is of more than usual importance in this pargana. There is a very large factory at Masuri near Dasna belonging to Mr. Michel, and many smaller factories owned by zamindars. The pargana has ample means of irrigation, owing in great part to the presence of the canal, but also to the ease with which unprotected wells can be dug everywhere. In 1308 the irrigated area amounted to 25,377 acres, of which 18,802 acres were watered from canal, 6,425 acres from wells and 172 acres from other sources. In the year of settlement the irrigated area was very much larger in this pargana, extending to three-quarters of the cultivation, which shows that the pargana is practically secure against drought; for besides the canal the number of masonry wells has very much increased of late years.

The revenue now stands at Rs. 1,63,460, being at the rate of Rs. 2-12-3 per acre of cultivation and calculated at 46·79 per cent. of the net assets. At the settlement of 1840 the demand was Rs. 97,163, rising to Rs. 1,23,050 at Mr. Forbes' settlement of 1866. The enhancement obtained at the recent assessment was 29·95 per cent. Rents range from Rs. 9-0-10 to Rs. 7-3-7 per acre in the case of tenants-at-will, but are considerably lower for occupancy tenants. As elsewhere the bulk of the pargana is held on bhaiyachara tenure, but there is a considerable amount of imperfect pattidari and joint zamindari holdings. Among the zamindars there are several large proprietors. Mr. Michel of Masuri till recently held nine villages, including some of the best in the pargana, but they have now been taken possession of by Mr. Jackson of Lucknow under the terms of a mortgage. The estate of the Skinner family of Bulandshahr has shares in fourteen villages, while a considerable amount of land belongs to the Banias of Dehra. Of the smaller proprietors the Rajputs are far the most important; they held nearly the whole pargana east of the canal, with the exception of the zamindari villages. Along the western border we find Jats and Ahirs, while there are a few Tagas on the eastern boundary. The remainder belongs to Gujars, Saiyids, Pathans and Kayasths. The Rajputs are chiefly Gahlots, but there are some numbers of Pundirs and

Tomars. The proprietors themselves are the chief cultivators. Formerly the Rajputs held the greater part of the land in this pargana and were once zamindars where they are now merely tenants. The cause of this was their rebellion during the mutiny and the consequent confiscation of their estates.

The total population of the pargana at the last census numbered 85,356 persons, of whom 45,145 were males and 40,211 females. Hindus numbered 60,247, Musalmans 24,505, while 424 of other religions, Aryas, Jains, Sikhs and Christians. The largest town in the pargana is the former municipality of Pilkhua; but there are many villages with large populations, the chief of which are Dasna (which is more of the nature of a town), Dhaulana, Dehra, Sapnawat and Bajhera, all of which are separately mentioned. The pargana is well provided with means of communication. Close to the eastern border is the great railway centre of Gháziabad from which the branch line of the Oudh and Rohilkhand Railway runs eastwards through the pargana with stations at Dasna and Pilkhua. Parallel to this runs the metalled road from Gháziabad to Garhmuktesar, from which a branch line takes off near Dasna leading to Dehra, Dhaulana and Sapnawat, to join the metalled road from Hapur and Meerut to Bulandshahr.

There are post-offices at Pilkhua, Dasna, Dhaulana and Dehra and canal bungalows at Harsaun, Dahirpur, Dasna, Dehra and Karanpur, belonging to the Bulandshahr division of the Ganges canal.

DAULA, *Pargana and Tahsíl* BAGHPAT.

A large village lying in latitude 28° 58′ north and longitude 77° 20′ east, close to the metalled road from Meerut to Baghpat and about a quarter of a mile from the left bank of the Jumna canal from which it is irrigated. It lies at a distance of eight miles from Baghpat and 24 miles from Meerut. A branch road takes off close to the village leading to Aminnagar and Sardhana. The village site is in the shape of an irregular square, about a quarter of a mile each way, narrowing to where it abuts on the road. The site is slightly raised towards the centre and east, but slopes away to the north and south, large

ponds forming during the rains. The village is surrounded by cultivation and groves, except to the west, where there is a stretch of barren waste. There are a few scattered clusters of houses, but these are unworthy of the name of hamlets. It contained in 1901 a population of 3,517 persons, of whom 1,025 were Musalmans. The place has grown largely of late years, as in 1881 the total was 2,867 inhabitants. There is a weekly market here, a post-office, a canal bungalow, and a village school. The village belongs to Rajputs, both Hindu and Muhammadan; the latter live in the eastern part of the village round their mosque, and the Hindus to the west, under the shadow of their temple to Mahadeo, which stands high up on the western edge of the village and is said to be 250 years old. In the south-east in the Bhangis' quarter, and down the centre from north to south runs the bazár. There are several brick houses belonging to the zamíndárs, the chief of them being that of Chaudhri Amar Singh, who states that his family came to Daula 800 years ago. Some of the landholders of the village rendered good assistance to the refugees from Dehli and were rewarded with two confiscated villages.

DAURALA, *Pargana and Tahsíl* MEERUT.

A large village, in latitude 28° 7′ north and longitude 77° 43′ east, on the west of the road from Meerut to Saharanpur, at a distance of nine miles from the former. It is situated in a highly-cultivated country, watered in every direction by the Ganges canal. A short distance north of the village there is a station on the North-Western Railway, which goes by the name of Sardhana Road, and from it a road leads west to Sardhana town. Daurala possesses a second-class police-station, a post-office, a District Board bungalow, an upper primary school and a large military encamping-ground, which is half a mile from the railway station. The village contained in 1901 a population of 3,960 persons, of whom 898 were Musalmans and 34 Sikhs and Jains. Jats form the bulk of the Hindu population, and are the proprietors of this and four other villages. The village is held on bhaiyachara tenure, and there are as many as 1,125 co-sharers. The lands are watered from the Daurala distributary of the Ganges canal.

DEHRA, *Pargana* DASNA, *Tahsíl* GHÁZIABAD.

A large village on the road from Dasna to Dhaulana, situated, in 28° 38′ north latitude and 77° 36′ east longitude, at a distance of five miles from Dasna, three miles from Dhaulana and 25 miles from Meerut. Through the middle of the village passes the Ganges canal. It contains a population of 3,209 persons, of whom 2,498 are Musalmans; most of these are converted Pundir Rajputs, who own the greater part of the village, but a considerable share belongs to Robert Skinner of Bulandshahr, a descendant of Colonel Skinner. There is a canal bungalow here and a bridge over the canal about half a mile to the north-west of the main site; and here are the head works of the Mat branch.

DHAKAULI, *Pargana and Tahsíl* BAGHPAT.

This village lies, in latitude 28° 54′ north and longitude 77° 23′ east, to the north of the road from Baghpat to Muradnagar, at a distance of 22 miles from Meerut and ten miles from Baghpat. The land is held by Jats, who are said to have settled here from across the Jumna. They are known as Sher Khani Jats, owing, it is said, to a title conferred on Sher Singh, a Jat, by one of the Mughal Emperors. The village site is located above the right bank of a small *nala* that runs into the Hindan river. It covers a considerable area, and in 1901 had a population of 4,536 persons, of whom 3,878 were Hindus, 402 Musalmans and 256 Aryas. There is a village school here.

DHAULANA, *Pargana* DASNA, *Tahsíl* GHAZIABAD.

A small town on the unmetalled branch road leading from Dasna to join the main road from Meerut and Hapur to Bulandshahr at Gulaothi. About two miles to the west of the village runs the Ganges canal. The place lies in latitude 28° 38′ north and longitude 77° 39′ east, at a distance of nine miles from Dasna and 25 miles from Meerut. It contained in 1901 a population of 3,652 persons, of whom 2,357 were Hindus and 1,295 Musalmans. The majority of the Hindus are Jats. The Khattris of Dhaulana hold a large portion of the village. The place contains a police-station, post-office and a primary Government school as well as an aided indigenous school. There is a fine temple

here dedicated to Malan or Malandi Debi. At one time the people of Dhaulana used to worship at Nagla Kashi, but about 50 years ago a fight took place between the Thakurs of these two villages at the fair held in honour of Malandi, after which they built the present temple. The place was sacked by the Sikhs in 1780. Dhaulana is administered under Act XX of 1856, and in 1901 the income, including a balance of Rs. 160 from the preceding year, amounted to Rs. 1,111. Out of 949 houses in the town 613 were assessed to taxation at the rate of Re. 1-4-4 per assessed house and Re. 0-3-8 per head of population. The expenditure for the same year was Rs. 1,044, of which Rs. 400 were devoted to the up-keep of the police, Rs. 300 to local improvements and Rs. 264 to conservancy.

DHAULRI, *Pargana and Tahsíl* MEERUT.

A large village in the south-west corner of the tahsíl, situated above the left bank of the Hindan river on the road from Baleni to Begamabad and Hapur, at a distance of 14 miles from Meerut. There is a pillar here of the Great Trigonometrical Survey, in latitude 28° 55′ and longitude 77° 29′, at an elevation of 780 feet above the sea. The village, which is also known as Rasulpur-Dhaulri, contained in 1901 a population of 3,914 persons, of whom 2,428 were Musalmans; the latter are mainly Saiyids (to whom the village belongs) and converted Rajputs. There is a post-office here and a village school.

DOGHAT, *Pargana* BARNAWA, *Tahsíl* SARDHANA.

A very large village in the north of the pargana, at a distance of seven miles from Barnawa and 26 miles from Meerut. It contains a population of 4,563 persons, of whom 3,519 are Hindus, 648 Musalmans and 396 Jains. The majority of the Hindus are Jats, to whom the village belongs. The place possesses some small local celebrity for its leather. There is a Government primary school here. Doghat, with Tikri, Daha and Nirpura, forms a portion of the Jat Chaugaon which comprises nearly half the pargana. It lies in latitude 29° 12′ north and longitude 77° 23′ east. Daha is two miles to the east and Tikri the same distance to the north-west.

DOTAI, *Pargana* GARHMUKTESAR, *Tahsíl* HAPUR.

A large village, in latitude 28° 47′ north and longitude 78° 4′ east, on the west side of the main road from Garhmuktesar to Meerut, at a distance of 25 miles from the latter and three miles from Garhmuktesar. It contained in 1901 a population of 3,597 persons, of whom 1,507 were Hindus and 2,098 Musalmans. Prior to the English occupation the village was given to one Radhe Krishan, a Brahman. The grant was subsequently revoked and the settlement made with the old zamindars of the village, who are Rajputs, most of them being Musalmans. They also hold some property in the neighbouring khadir. There is a Government school in the village. Markets are held here weekly.

FARIDNAGAR, *Pargana* JALALABAD, *Tahsíl* GHAZIABAD.

A town situated in latitude 28° 46′ north and longitude 77° 41′ east, in the south-east of the pargana; it is connected by a small branch road with the unmetalled road from Baleni and Begamabad to Hapur, at a distance of five miles north of Pilkhua and 16 miles from Meerut. The place was founded by Nawab Farid-ud-din Khan in the reign of Akbar in the middle of what was then a jungle. It had at the last census a population of 5,620 persons, of whom 2,811 were Musalmans. The place contains a post-office, a school and a small bazár. The inhabitants are for the most part Biluchis, Rajputs and Banias. A good deal of market gardening is carried on in the neighbourhood. There are two main sites, Faridnagar and Hashampur, both of which have grown largely of late years, for in 1865 the population was 4,525 persons. The town is administered under Act XX of 1856, and in 1801 the income of the place amounted to Rs. 1,643, including a balance of Rs. 376 from the preceding year. Out of 1,464 houses in the town 738 were assessed, the incidence of taxation being Re. 1-7-5 per assessed house and Re. 0-3-6 per head of population. The expenditure for the same year was Rs. 1,507, of which Rs. 578 were devoted to local improvements, Rs. 424 to the upkeep of the town police and Rs. 384 to conservancy.

FARUKHNAGAR, *Pargana* LONI, *Tahsīl* GHAZIABAD.

This is a small town lying within the limits of the revenue village of Asalatpur on the high ground above the right bank of the Hindan river, which is here crossed by a ford, at a distance of 14 miles north-east of Delhi. It is situated in latitude 28° 44′ north and longitude 77° 23′ east. It contains a population according to the returns of 1901 census of 1,009 persons, of whom 170 are Musalmans and 41 Jains. Chamars are the most numerous caste. The village belongs to Banias, who also own other property in the neighbourhood. The town, though small and unimportant, is administered under Act XX of 1856, the income in 1901 being Rs. 887, inclusive of a balance of Rs. 340 from the preceding year. There are 450 houses in the town, of which 354 are assessed, with an incidence of Re. 1-2-9 per assessed house and Re. 0-6-6 per head of population. The expenditure for the same year was Rs. 727, of which Rs 350 were devoted to local improvements and Rs. 240 to the upkeep of the town police. The place takes its present name from the Emperor Farukh Siyar, who built a sarai here.

GARHMUKTESAR, *Pargana* GARHMUKTESAR, *Tahsīl* HAPUR.

The capital of the pargana is situated in latitude 28° 47′ north and longitude 78° 6′ east, on the right bank of the Ganges. It is connected with Meerut by a metalled road 28 miles in length. Another metalled road leads to Hapur, a distance of 21 miles and Dehli, 58 miles. The Ganges is crossed by a bridge of boats during the cold weather and a ferry in the rains. This ferry is in the charge of the Executive Engineer, and is leased to a contractor. Besides these roads there is the branch line of the Oudh and Rohilkhand Railway from Moradabad to Ghaziabad, with a station a short distance west of the town that was opened in 1900. The railway crosses the Ganges by a bridge of 11 spans and a total length of 2,332 feet, completed on the 11th of April 1901. A small unmetalled road leads south to the town of Bahadurgarh.

The town stands on the high cliff of the Ganges, a few miles below its junction with the Burhganga, and contains 2,117 houses, many of which are built of brick. The main bazár

runs from west to east on either side of the Dehli road, and dips down suddenly as it approaches the khádir of the Ganges. On the west there are four large sarais, and east of this there is an open space used as a grain market. The military encamping-ground also lies to the west of the town, two miles from the river. The bazár is lined with good shops, which towards the edge of the cliff are of two storeys and built of brick. The road is metalled and in places paved with brick, and on its descent to the Ganges has been carefully sloped away and a good brick-paved causeway constructed for the convenience of cart traffic. On either side of the main bazár the houses are closely packed together and the lanes are narrow and unmetalled. The drainage throughout is perfect, all the surplus water at once running off to the Ganges. The dispensary lies between the Brahman and Musalman quarters, on the edge of the ridge overlooking the khádir. The police-station stands to the north of the town. There is also a post-office, cattle-pound, school, and a dák bungalow near the town, on the western outskirts. The Jami Masjid had already been mentioned in Chapter V. The site is sandy, but below the sand there is a good stratum of firm soil which admits of the construction of wells. The drinking-water is good and is found at a depth of from 30 to 50 feet below the surface. The town is in character mainly agricultural, and the trade is of no great importance, except in timber and bamboos, which are rafted down the Ganges from the Dún and Garhwal.

The population of the town in 1901 numbered 7,616 persons, of whom 4,549 were males and 4,186 females. As might be expected, Hindus largely predominate, numbering 5,092, most of them being Brahmans. There is, however, a considerable Musalman element, amounting to 2,348 persons, which has to be taken into consideration: the head of the Muhammadans was hanged here for rebellion during the mutiny. Followers of other religions numbered 176, most of whom are Jains. In 1847 the population was 7,168, rising to 8,781 in 1852, but decreasing in 1872 to 7,962 souls: from which it will appear that it is rather diminishing than stationary. Garhmuktesar is administered under Act XX of 1856, and in 1901 there were 1,133 houses assessed to taxation, yielding Rs. 1,912 with an

incidence of Re. 1-12-0 per assessed house and Re. 0-5-3 per head of population. The total income, including a balance of Rs. 223 from the preceding year, was Rs. 3,527, of which Rs. 2,847 were expended, Rs. 1,240 being devoted to the up-keep of the town police force, numbering 20 men of all grades, and Rs. 852 to conservancy.

The place is said to have been a muhalla of Hastinapur, and frequent mention is made of it in the Bhagavat Purana and in the Mahabharata. There was a very ancient fort here, which was repaired by Mir Bhawan, a Mahratta leader, and was in so good preservation at the beginning of British rule that only a very small expenditure was necessary to fit the place for a tahsíl. Garhmuktesar is occasionally mentioned by the Persian historians as a garrison town. The name is derived from the great temple of Mukteswara Mahadeo, dedicated to the goddess Ganga. There are four principal temples—two high, placed on the cliff, and two lower down—in all of which Ganga, formed of white marble and clothed in brocade, is worshipped. The one near the Meerut road contains the sacred well, with the waters of which every one must be washed before his sins are cleansed. Near this temple there are no less than eighty *sati* pillars, marking the spots where wives, in times not so far removed, gave up their lives on the funeral pyre of their departed husbands. The great fair is held on the day of the full moon of Kartik, when some 200,000 pilgrims congregate here from all parts of the country. Double this number assemble on the sixth and twelfth years, and even greater numbers each fortieth year. Fairs are also held on the Somwati amáwas, or the last day of the lunar month when it falls on a Monday; on the full moon of Baisakh; on the ninth day of the light half of Jeth, and on certain other days when certain planets are in conjunction with certain others or with certain points of the zodiac. The chief object of these fairs is to enable Hindus to bathe in the Ganges on auspicious occasions. The great fair is held on the banks of the river, the space occupied being divided into blocks, separated by wide passages, with a broad street or bazár running through the centre at right angles to the passages. The pilgrims, who are mainly Jats and Gujars from the neighbouring districts, come with their carts and

families, and live in rough shelters and tents on the sand. It was supposed that the opening of the railway would alter the character of the fair, and that the long line of bullock-carts with their loads of gaily-dressed women and their accompaniment of solemn cultivators would be a thing of the past, but the experience of the last two years has shown that the villager prefers the old way. The railway may enable pilgrims from more distant places to reach the Ganges at the auspicious hour, but it offers no advantage to the ordinary villager, unless his home is very close to the line of rail.

The expenses of the fair are met from a tax on carts and cattle and from the rents of shops. A small horse-fair used to be held, but it has languished of late years. Mules are brought in large numbers and there is some prospect that a mule-fair will be regularly established.

GARHMUKTESAR *Pargana, Tahsíl* HAPUR.

This pargana occupies the north-eastern portion of the tahsíl, extending inland from the Ganges to pargana Hapur on the west. To the north is pargana Kithor of the Mawana tahsíl, and to the south pargana Puth. It has a total area of 71,150 acres or 111 square miles.

All along the Ganges there is a fringe of low-lying land or khádir, separated from the upland by a high cliff under which there is generally a depression with much swampy ground; near the river the surface is broken by many channels, separated by stretches of rough grass jungle, but the centre of the khádir is high and open. Formerly a large amount was under cultivation, but the soil has very greatly deteriorated of late years owing to the great increase of *reh*.

In the upland also the influence of the Ganges is apparent. It is a level plateau covered with a net work of ridges of sandy soil, the origin of which is due to the river. The larger of these strips of *bhur* enters the pargana about the middle of the north border and passes southwards west of the canal. Several other lines take off from the ravines, which stretch in an unbroken line from north to south, but these spurs are much narrower. The highest level is that along which the Anupshahr branch of the

Ganges canal runs. To the west of this there is a sudden drop ending in a depression which extends from the sandy ridge of the canal to another tract of *bhur* which traverses the eastern border of Hapur pargana from north to south.

Of the total area 49,616 acres or 69 per cent. were cultivated in 1308 Fasli, the areas sown in the kharíf and rabi harvests being approximately equal, while about 6,608 acres bore a double crop. The construction of the Anupshahr branch of the Ganges canal has revolutionized the condition of the pargana, bringing a large tract within the area of canal irrigation, so that Garhmuktesar is now practically secure from the effects of drought, as are also the other parganas lying along the banks of the Ganges. The actual irrigated area amounts to 12,864 acres, of which 11,150 acres are watered from the canal, 1,599 acres from wells and 115 acres from other sources. The natural result of the construction of the canal has been a decline in the well irrigation, but this method is still employed in some of the best villages lying in the centre of the pargana where the firm sub-soil renders their construction easy. Elsewhere, especially on the edge of the khádir, irrigation is very difficult owing to the marked presence of sand. The principal crops are wheat, gram, peas and barley in the rabi, and sugarcane, juar, maize, rice and cotton in the kharíf. There has been a very large increase in the sugarcane during the last few years, and a corresponding decrease in cotton. Wheat has also increased to a considerable extent, but it cannot as yet be said to have wholly supplanted barley.

The revenue of the pargana now stands at Rs. 89,950, being at the rate of Rs. 2-2-7 per acre of cultivation. There has been a large enhancement at the last revision, for in 1840 the demand was fixed at Rs. 48,896 and in 1866 at Rs. 58,880. A good deal of the pargana is held by communities of small proprietors. The Tagas are perhaps the most important, owning most of the tract north of the road to Meerut. The Pathans of Hasanpur in Moradabad hold three large villages, while the Jats of Mirpur in pargana Hapur have recently made large purchases in this pargana. There are several other Jat communities scattered about the tract; the remainder belongs chiefly to Rajputs who formerly were of great importance here. Their largest

settlement is at Dotai near Garhmuktesar, but these Rajputs are Musalmans. The Jats are the principal cultivators, the bulk of the remainder consisting of Musalmans, Tagas and Gujars.

The population of the pargana at the census of 1901 numbered 58,742 persons, of whom 31,426 were males and 27,317 females. Classified according to religions there were 40,403 Hindus, 17,640 Musalmans and 699 others, Aryas, Christians and Jains. In 1872 the total was 46,913, and since that time there has been a constant and steady increase. The only town in the pargana is Garhmuktesar, which has a population of 7,616 persons. Next in point of size come the villages of Dotai and Baksar, which are separately mentioned. Besides these there are one or two considerable villages, such as Atseni, Wait and Datiana, where there is a small market. Up to 1819 Garhmuktesar was the head of a tahsíl which in that year was transferred to Hapur, and included the parganas of Hapur, Ajrara, Sarawa, Bhojpur, Jalalabad and Garhmuktesar. In 1852 the number of villages was 118, reduced by transfers to 84 in 1853, and now amounting to 77.

Garhmuktesar is well supplied with means of communication. From the chief town a metalled road runs to Meerut and to Hapur, uniting a short distance west of the pargana capital. Parallel to the Hapur road runs the branch line of the Oudh and Rohilkhand Railway from Moradabad to Gháziabad, with stations at Garhmuktesar and Baksar. A small unmetalled road runs south from Garhmuktesar to Bahadurgarh. There are post-offices at Baksar and Garhmuktesar. Canal inspection-bungalows are to be found at Baksar and Janupura.

GHAZIABAD, *Pargana* LONI, *Tahsíl* GHAZIABAD.

The tahsíl headquarters is a flourishing town, situated in latitude 28° 40′ north and longitude 77° 26′ east, on the Grand Trunk Road from Calcutta to Dehli, at a distance of about 14 miles from Dehli and 28 miles from Meerut, with which it is connected by a metalled road. A third metalled road leads to Hapur and Garhmuktesar, while a small unmetalled road runs to Loni and Baghpat, leaving the Grand Trunk Road at Jagaula. About two miles west of the town the road crosses the Hindan river by a bridge, and then passing through Shahdara crosses the

Jumna by the railway bridge and enters Dehli by the Calcutta gate.

Ghaziabad was founded in 1740 by the Wazir Ghazi-ud-din, son of Asaf Jah and brother of Salabat Jang, the ruler of the Deccan. It was at first known as Ghazi-ud-dinnagar, but on the opening of the railway the name was shortened to Ghaziabad. It was near here that in May, 1857, the small British force from Meerut successfully encountered the Dehli rebels who had come out to oppose them, as is recorded in Chapter V.

Ghaziabad railway station is a junction for three different lines. The chief is the East Indian Railway from Calcutta to Dehli, which was opened in 1865. To the west of the town it is joined by the North-Western Railway from Meerut and Saharanpur, constructed in 1867, and a few years ago the branch line of the Oudh and Rohilkhand Railway, known as the Moradabad-Ghaziabad line, was completed.

The town comprises portions of the three villages of Jatwara, Kaila and Bhaunja. There are two main streets crossing one another at right angles with a gateway at the extremity of each. The first, which runs from east to west, is called the Purana bazár, while that running from north to south is known as Naya bazár, both being broad metalled ways, with masonry drains and good brick-built shops. The houses between the streets are closely packed together and divided by narrow lanes with some appearance of regularity. To the north-east is the brick-built sarai of the founder, Ghazi-ud-din. The town of late years has spread considerably beyond its limits. The new portion is known as the Nai Abadi, and contains two markets known as Wrightganj and Wyerganj, from the names of the two Collectors who founded them. To the east the village of Jatwara contains the cultivators of the Ghaziabad lands, and there is a fine tank here with some good trees on its banks. At Kaila there is a second tank built by a Goshain, Kamta Ram, over 100 years ago. The sarai of Ghazi-ud-din is a capacious building surrounded by 120 rooms of masonry, adorned with pointed-arch fronts. In it are located the police-station and the municipal hall. There is a mosque here, and five others elsewhere in the town. The chief Hindu temple is that of Dudheswar Nath, built about 200 years

ago. Near the station there are several barracks, bungalows and houses belonging to the railway companies.

The population of Ghaziabad at the last census numbered 11,275 persons, of whom 6,205 were males and 5,070 females. Classified according to religions, there were 7,228 Hindus, 3,595 Musalmans, 250 Christians, 54 Jains and 148 others, chiefly Aryas. In proof of the recent growth of the place it may be mentioned that in 1847 the total population was 5,112, and in 1872 it rose to 7,365 inhabitants. Besides the police-station, already mentioned, and the tahsíl headquarters, Ghaziabad contains a post-office, telegraph station, cattle-pound, dispensary and a dâk bungalow. There is a military encamping-ground close to the railway station, an upper primary school with 142 scholars on the rolls, and six indigenous vernacular schools aided by the municipality.

Ghaziabad is administered as a municipality under Act I of 1900, with a board of twelve members, of whom nine are elected and two nominated by Government and one by the railway companies. The town is divided into three wards, each returning three members. The income is chiefly derived from an octroi tax on imports, the chief objects of taxation being articles of food and drink, piece-goods and building materials. The incidence of octroi, after deducting refunds, was Re. 0-13-0 per head of population. The total income in 1902 amounted to Rs. 28,453, inclusive of a balance of Rs. 7,031 from the preceding year. Of this the octroi tax contributed Rs. 1,875, while Rs. 753 were realized from the tax on houses and lands, and Rs. 537 from the revenues of markets and slaughter-houses. The total expenditure for the same year amounted to Rs. 13,975, of which Rs. 2,649 were devoted to conservancy, Rs. 1,539 to the maintenance of the police, Rs. 3,188 to drainage and public works and Rs. 2,898 to the cost of administration and collections. The town is well drained and generally healthy, but there is always a certain amount of fever, and the death-rate for the last year of record was as high as 43 per mille.*

GHAZIABAD *Tahsíl.*

This tahsíl occupies the south-western corner of the district and consists of the three parganas of Jalalabad, Loni and Dasna,

* For further details as to income and expenditure, *vide* Appendix, Table XVI.

each of which has been separately described in its capacity of a revenue subdivision, with a full account of its physical characteristics, revenue, agricultural and land tenures. The Ghaziabad tahsíl is administered as a subdivision of the district in the charge of a full-powered officer on the district staff, assisted by the tahsildar, whose headquarters are at Ghaziabad. The tahsíl contains the municipal town of Ghaziabad, the notified areas of Pilkhua and Shahdara, while there are also several smaller towns, such as Muradnagar, Begamabad, Dasna, Loni, Farukhnagar and Faridnagar, which are administered under Act XX of 1856, while all the larger villages having a population of over 2,500 inhabitants have also been separately described. For the purposes of civil jurisdiction a munsif is stationed at Ghaziabad, who has also charge of the Baghpat tahsíl and the Sikandrabad tahsíl in the Bulandshahr district. There are police-stations at Ghaziabad, Shahdara, Pilkhua, Loni, Muradnagar, Begamabad and Dhaulana, the circles of which are confined to the limits of the tahsíl. Post-offices are established at each of these places, and also at Jalalabad, Niwari, Dasna and Dehra.

The tahsíl is exceptionally well provided with means of communication. Through Shahdara and Ghaziabad runs the main line of the East Indian Railway, with stations at these two places, while Ghaziabad is also the terminus of the North-Western Railway, which runs to Meerut and Saharanpur, on which there are stations at Muradnagar and Begamabad. From Ghaziabad also runs the branch line of the Oudh and Rohilkhand Railway to Moradabad, with stations at Dasna and Pilkhua. Parallel to these three lines of railway run metalled roads, the Grand Trunk Road from Dehli to Calcutta, the metalled road from Dehli to Meerut, and the road from Ghaziabad to Garhmuktesar. Besides these there are numerous unmetalled roads in the tahsíl. The road from Baghpat to Loni divides into two branches, leading to Shahdara and Ghaziabad; from Muradnagar a road runs to Baghpat through the large villages of Rauli and Surana; through Begamabad runs the road from Baleni to Hapur with a branch to Faridnagar; and from Dasna a road runs through Dehra, Dhaulana and Sapnawat to join the metalled road from Meerut to Bulandshahr. There are District Board bungalows at Begamabad

and Ghaziabad. Through the centre of the tahsíl runs the main Ganges canal with inspection-bungalows at Niwari, Muradnagar, Ghiaspur, Sultanpur, Bhatjan, Kalchina, Dasna, Dehra, Karanpur and Harsaun. The western part of the tahsíl is served by the Eastern Jumna Canal, with bungalows at Sarauli and Silampur.

The population of the tahsíl in 1901 numbered 276,518 persons, of whom 147,598 were males and 128,920 females. Classified according to religions there were 211,589 Hindus, 62,545 Musalmans, 1,476 Christians, 584 Aryas, 302 Jains and 22 Sikhs. The number of Musalmans is very large, although in this respect the tahsíl falls considerably short of the Meerut pargana. Among the Hindus Chamars predominate, numbering 38,060; next to them come Brahmans, 23,085; Jats, 21,803; Rajputs, 20,262; Tagas, 14,478; Gujars, 13,410; and Banias, 11,483. There is a considerable difference in the castes in this tahsíl as compared with the neighbouring tahsíl of Baghpat. The Jats, though numerous, do not occupy the predominant position that they hold in the north of the district. The Rajputs are chiefly found in pargana Dasna and are of many clans; the chief are Gahlots, but there are also many Chauhans, Panwars and Tomars. The Gujars are chiefly confined to Loni, as has been mentioned in the article on that pargana. Of the Musalmans, nearly one-quarter are converted Rajputs, chiefly of the Gahlot and Tomar clans. Next to them come Sheikhs, converted Tagas, Faqirs, Julahas and Bhangis. Owing to the presence of the unusual number of large market towns in the tahsíl we find more persons engaged in trade here than elsewhere in the district, omitting of course the city of Meerut. The exceptional number of Banias is a significant fact, and this is no doubt due in great measure to the proximity of Dehli. While naturally agriculture is by far the most important occupation, there are very many dealers in grain, cotton and leather, and a considerable proportion of the population are engaged in the manufacture of these articles. The large grazing areas in Loni give rise to a considerable trade in hides, and the presence of the railway encourages local industries to a considerable extent. At the same time, although we find numerous representatives of the

ordinary village industries in this tahsíl, there are no trades or manufactures that can be described as in any way peculiar to it. Potters, carpenters and metal-workers are found in large numbers, but they or their manufacture call for no special mention.

GOHRA ALAMGIRPUR, *Pargana and Tahsíl* HAPUR.

A village on the left bank of the Eastern Chhoiya, situated in latitude 28° 49′ north and longitude 77° 54′ east at a distance of five miles south of Kithor and 15 miles from Meerut. It contained at the last census a population of 1,749 persons, of whom 169 were Musalmans. Gujars are the prevailing Hindu caste. It is now quite an uninteresting place belonging to Taga Brahmans and Gujars, but was formerly the head of a tappa and a place of considerable importance. Tradition says that the cattle of the Hastinapur Raja were housed here. Near Gohra a *khera* is said to mark the site of an old town known as Bijaiyapur, under which name it is known to this day. The village previous to the mutiny was in the possession of Raja Nain Singh of Parichhatgarh, who had a fort here.

HAPUR, *Pargana and Tahsíl* HAPUR.

The headquarters of the tahsíl is the second town in the district, and is situated, in latitude 28° 43′ north and longitude 77° 47′ east, on the metalled road from Meerut to Bulandshahr, at the point where it is crossed by a second metalled road running from Ghaziabad to Garhmuktesar, at a distance of 19 miles from Meerut and 62 miles from Aligarh. An unmetalled road runs north-west to Begamabad and Baleni on the road from Meerut to Bághpat. Parallel to and to the north of the Ghaziabad road runs the Moradabad-Ghaziabad branch of the Oudh and Rohilkhand Railway, with a station about half a mile north of the town. This railway was opened in 1900 and has contributed materially towards the prosperity of the place, which is now the most rising town in the district.

Hapur is said to have been founded by Har Dat, the Dor chieftain of Bulandshahr and Meerut, about 983 A.D., and to

have been called after him Harapur. A more probable derivation is from Hápur, which signifies an orchard or grove. It is noteworthy that the name of the town is always pronounced "Hápar," and in the old records was spelt "Haupper." The town formed part of the jagir of General Perron of Scindhia's army, who established here a vast system of grants for the disabled or worn-out soldiers of his force, which was adopted by the British for many years. In the Meerut records there are numerous papers giving details of contracts for clearing waste lands or jungle for the benefit of invalid pensioners as jagirdars. In March, 1805, Ibrahim Ali, the tahsíldár of Hapur, defended the station against Amir Khan and 500 other Pindaris. During the mutiny Hapur was threatened by the force of Walidad Khan of Malagarh, who was obliged to retire by the loyal Jats of Bhatauna.

The town lies inthe angle formed by the two main roads and is surrounded by several fine groves. There were formerly five gates, of which the names alone have survived, called the Dehli, Meerut, Garhmuktesar, Kothi and Sikandra gates. The centre of the town stands high and is crowned by the Jami Masjid, which was built during the reign of Aurangzeb in 1081 H. All around the town there are numerous excavations often full of stagnant water, the chief being the large reservoir connected with the Chhoiya nala, which carries off the superfluous moisture from about the three quarters of the town. The drainage system has been greatly improved of late years, but the old lines have been followed. The principal bazár, known as the Purana bazár, runs from the Meerut to the Dehli gate. To the west of this are the Purana and Naya mandis or markets and Mahadeoganj; all run parallel to each other and are bounded on the north by the Khulari bazár and on the south by the Bazzáz and Halwái bazárs, which run out west from the Purana bazár. All these markets are lined with shops and form a compact business-quarter. The Musalmans reside generally to the east, and here the character of the town is that of a large agricultural village.

The tahsíli building and the police-station are situated outside the town on the Bulandshahr road in a large courtyard

surrounded with brick walls and well shaded with trees. The dispensary lies in the centre of the town in a good building purchased for the purpose, and the anglo-vernacular school with an average attendance of 100 pupils is situated in the Khulari bazár. This school is managed by the municipality, as well as a lower primary girls' school, while there are nine indigenous vernacular schools in the town. There are three sarais on the Meerut road and two others elsewhere. Besides these there is a military encamping-ground on the route from Bulandshahr to Meerut to the north-west of the town and west of the road. A large market is held here every Monday and a considerable trade in sugar, grain and cotton, bamboos and brass vessels is carried on. A steam cotton-press was started in 1899, and in January, 1903, the Raghobir ginning and press factory was opened. The latter was registered as a limited liability company in August of the same year, with a capital of Rs. 1,00,000. There are 32 double gins and a double *kapás* opener. The former are capable of turning out 480 maunds of clean cotton in a day of ten hours. A steam press has recently been added. In the first year from 50 to 60 hands were employed daily, and this number will be considerably increased. A small fair is held here annually at the Ramlila, and lasts for ten days.

The population of Hapur in 1901 amounted to 17,796 persons, of whom 9,358 were males and 8,438 females. Classified according to religions there were 10,038 Hindus, 7,518 Musalmans, 138 Christians, 74 Jains and 28 others. The town was for many years administered under Act XX of 1856, but in March 1872 was converted into a municipality, and is at present administered under Act I of 1900 by a board consisting of twelve members, of whom nine are elected, three being returned by each ward. The total income in 1902 amounted to Rs. 38,694, including a balance of Rs. 5,029 from the preceding year. This is chiefly realized by an octroi tax on imports, which amounted to Rs. 26,985. The only other head of any importance is the sale of manure, which realized Rs. 4,855. The chief objects of taxation are articles of food and drink, cloth, building materials, and fuel. The incidence of taxation stands at Rs. 1-8-3 per head of population. The expenditure for the same year amounted to

Rs. 18,640, of which Rs. 4,137 were devoted to the cost of administration and collections, Rs. 3,926 to conservancy, Rs. 2,265 to the maintenance of the police, Rs. 2,510 to education, and Rs. 1,299 to public works. Further details will be found in the appendix.*

HAPUR *Pargana*, *Tahsíl* HAPUR.

This is the largest pargana of the tahsíl, extending from the Bulandshahr district on the south and south-east to Sarawa and Kithor on the north. To the west lies the Dasna pargana of the Gháziabad tahsíl and to the east Garhmuktesar. It has a total area of 103,299 acres or 161 square miles.

The general character of the pargana is that of a high-lying level tract deeply furrowed by the streams which flow through it from Sarawa and converge on the southern border of the pargana. In addition to the western Chhoiya, the Kali Nadi and the smaller or eastern Chhoiya, there is another stream which comes from Jalalabad, which being a natural drainage line, but deepened and used by the Canal Department as a drain, is generally known as the Nala. In the neighbourhood of the Kali Nadi and the eastern Chhoiya there is a large tract of bad soil as poor as any in the district. Further south, where all the rivers meet, there is an extensive stretch of *bhur* land of a more pronounced character than that found in Sarawa. Along the western Chhoiya there is a good deal of *bhur* which alternates with wide areas of poor uneven soil; the influence of the so-called Nala on the other hand is less marked, the soil undoubtedly being lighter than the average, but its area is small and containing practically no *bhur*. Generally speaking, the best portion of the pargana is that which lies along the south-western border west of the road from Meerut to Bulandshahr. In 1308 Fasli the total cultivated area amounted to 86,345 acres or 83 per cent., while the bulk of the remainder consists of barren land or land which is occupied either by groves or covered with water. There has been a considerable increase during the last forty years, for in 1866 the total cultivated area was 79,038 acres. The greater part of the pargana depends on well irrigation, on account of the distance

* Appendix, Table XVI.

from the main Ganges canal on the west and Anupshahr branch on the east. The total irrigated area in 1308 Fasli amounted to 16,161 acres, of which 5,105 acres were watered from canals, 10,936 acres from wells and 122 from other sources. The canal irrigation is confined to the south-western tract and the north-eastern corner of the pargana, being derived from the Bhatjan distributary in the south-west and the Gulaothi rajbaha on the western side of the Nala; in the north-east a few of the border villages get water from the Parichhatgarh distributary. There has been a large increase in the number of masonry wells in this pargana, partly owing to the fact that they are more advantageous, and also because unprotected wells do not last for long and are in many cases impossible to construct. The rabi harvest slightly exceeds in extent the area sown in the kharíf, and nearly 20 per cent. bears a double crop. Wheat, gram and peas form the chief rabi staples, but there is still a large area under barley and a fair proportion of garden cultivation. In the kharíf juar takes the lead, followed by maize, cotton and sugarcane. The last-mentioned crop has improved considerably of late years, but it is not grown in that proportion which we find elsewhere in the district; maize has increased very largely, chiefly at the expense of cotton.

The revenue of the pargana now stands at Rs. 1,83,021, being at the rate of Rs. 2-5-1 per acre of cultivation. In 1840, the demand was Rs. 1,20,579, rising to Rs. 1,33,900 at Mr Forbes' settlement of 1866. The present increase is considerable, amounting to 22 per cent., owing chiefly to the enhancements of occupancy rentals which now in most cases reach a very adequate figure, a striking contrast to the rates prevailing in the neighbouring pargana of Puth. The most extensive form of tenure in this pargana is bhaiyachara, but there is an almost equally large area held in imperfect pattidari, while perfect pattidari and zamindari tenures are also strongly represented; the number of zamindari mahals, single and joint, amount to one-third of the whole, but the estates are often very diminutive. The most important zamindars are the Kuchesar family, who own in all eleven villages, consisting of almost the whole tract between the Chhoiya, the Garhmuktesar road and the south-east border. A con-

siderable proportion of the land belongs to the Gujars of Landhaura, who hold five whole villages and a few small shares in others. Next comes Chaudhri Debi Singh of Asaura, who has acquired a very large property, he and his family having shares in 27 villages. The cultivating proprietors are chiefly Rajputs, Tagas, Gujars and Jats. The Rajputs are owners of the south-west portion and hold much of the best land in the pargana; their chief head-quarters are at Dahana and Bhatiana. Besides the Tagas of Asaura there are several other colonies, the chief of which are at Hapur and Achiya. Gujars are chiefly found in the north in the neighbourhood of the Landhaura estate, but most of their villages are of a very poor character, lying chiefly along the Chhoiya and Kali Nadi. The main Jat stronghold is in the south-east near the property of the Kuchesar family; the richest are those as Bachlauta and Ayadnagar. They have increased their estates very largely by purchase during recent years. There are two villages of Ayadnagar, distinguished as Ayadnagar north and south; both belong to the Jats, but they are of different subdivisions, those of Ayadnagar Janub being Dhe Jats and those of Ayadnagar Shimal belonging to the Hele clan. The latter consider themselves greatly superior to the Dhes, and are undoubtedly of earlier origin. The proprietors are also the chief cultivators of the pargana, while Chamars and Barhais chiefly occupy the position of mere field labourers.

In 1901 Hapur had a population of 110,994 persons, of whom 57,846 were males and 53,148 females. Classified according to religions, there were 83,689 Hindus, 25,798 Musalmans and 1,587 others, chiefly Jains, Aryas and Christians. At the census of 1872 the total was 96,776 souls, rising to 89,528 in 1892, since which year the development has been very rapid. Hapur is the principal and in fact the only town of the pargana. The remaining villages, with the exception of Asaura and Dahana, are of small size. Asaura has been separately mentioned, as has also Babugarh, but the latter has an interest of its own on account of the presence of the Government Stud Farm. Hapur is the principal market, the remaining bazárs, with the possible exception of Dahana, being altogether insignificant.

The pargana is admirably supplied with means of communication, being traversed from west to east by the Gháziabad-Moradabad branch of the Oudh and Rohilkhand Railway with stations at Hapur and Babugarh, while parallel to this runs the metalled road from Gháziabad to Hapur and Garhmuktesar. This road is crossed at right angles, a short distance west of Hapur, by a second metalled road running from Meerut to Bulandshahr. From Gulaothi on the Bulandshahr border a branch road takes off from the latter, leading to Dhaulana, Dasna and Gháziabad; a second unmetalled road runs from Hapur to Begamabad and Baghpat, and a third leads from Babugarh to Kuchesar. There is a District Board bungalow at Hapur.

HAPUR *Tahsíl.*

The Hapur tahsíl occupies the south-eastern portion of the district, being composed of the four parganas of Hapur, Sarawa, Garhmuktesar and Puth, all of which have been separately described in detail. The tahsíl is administered as a subdivision of the district in the charge of a full-powered officer on the district staff, assisted by the Tahsíldár of Hapur and the officer in charge of the Government Stud at Babugarh who exercises the powers of a third-class Magistrate within the limits of the Hapur police circle. For the purposes of civil jurisdiction the tahsíl forms part of the Meerut munsifi. There are police-stations at Hapur, Garhmuktesar, Bahadurgarh, Baksar and Kharkhauda. Post-offices are established at each of these places and at Sarawa. There are only two towns in the tahsíl, the municipality of Hapur and Garhmuktesar, which is administered under Act XX of 1856. Besides these there are several large villages, the most important of which have been separately described.

The tahsíl is well provided with means of communication, for through the centre runs the Moradabad branch of the Oudh and Rohilkhand Railway, with stations at Garhmuktesar, Baksar, Babugarh and Hapur. Parallel to this runs the metalled road from Garhmuktesar to Gháziabad, which is crossed at Hapur by a similar road leading from Meerut to Bulandshahr. A third metalled road runs from Garhmuktesar to Meerut. From Hapur an unmetalled road leads to Begamabad and Baleni on the road

from Meerut to Baghpat, and from Garhmuktesar a road leads south to Bulandshahr with a branch to Bahadurgarh. There are District Board bungalows at Hapur and Sarawa. Through Garhmuktesar and Puth parganas runs the Anupshahr branch of the Ganges canal, with bungalows at Baksar, Janupura and Palwara.

The population of the tahsîl in 1901 amounted to 243,468 persons, of whom 122,650 were males and 115,818 females. Classified according to religions there were 178,924 Hindus, 61,514 Musalmans, 2,186 Christians, 723 Aryas, 114 Jains and seven Sikhs. Of the Hindus the most numerous castes are Chamars, who numbered 44,584; Jats, 24,979; Rajputs, 15,868; Brahmans, 15,771; Gujars, 8,886; Tagas, 8,733; and Banias, 8,539. The Rajputs are chiefly of the Chauhan clan, while there are large numbers of Jadons, Panwars and Gahlots. The Musalmans, who are very numerous in this tahsîl, are mainly Sheikhs and converted Tagas and Rajputs. There are also considerable numbers of Lohars, Qassabs, Pathans and Barhais. The tahsîl is mainly agriculture in character, the largest town being that of Hapur, which contains a large colony of Banias who carry on a considerable trade in grain. The chief industry of the tahsîl after agriculture is that of the cotton-weavers, while next to them, at a long distance, come carpenters, potters and workers in iron and other metals. Besides these there are good many tanners and leather-dyers who export to Dehli by railway a large amount of green leather, which is there worked up into shoes. This is the only manufacture which is in any way peculiar to the tahsîl, and the other trades and occupations call for no special mention. An exception should, however, be made in the case of the pottery of Bahadurgarh, which is of considerable importance and an account of which will be found in the article on that village.

HARRA, *Pargana and Tahsîl* SARDHANA.

A village on the road from Sardhana to Binauli and Baraut near the left bank of the Hindan river, the banks of which slope down from the village to the ford at Barnawa, at a distance

of eight miles from Sardhana; it is situated in latitude 29° 7′ north and longitude 77° 30′ east. It has a population of 3,006 persons according to the returns of the 1901 census, and of these 650 were Hindus, 2,219 Musalmans and 137 Jains. The majority of the Muhammadans are Nau-Muslims. There is an aided indigenous school in the village.

HASTINAPUR, *Pargana* HASTINAPUR, *Tahsíl* MAWANA.

The place which gives its name to the pargana is a village which lies, in latitude 29° 10′ north and longitude 78° 1′ east, on the high bank of the Burhganga, in a somewhat remote tract at a distance of six miles north-east of Mawana and twenty-two miles from Meerut. It consists of two portions, of which that to the north is known as Hastinapur, Patti Kauravan, while the southern half is called Hastinapur, Patti Pandavan. Both of these are practically uninhabited, the only habitations being the temples built within recent years by Saraugis. A few deserted temples are scattered along the ridge overlooking the khádir, but none appear to be of any great antiquity. There are also the remains of an old fort, but no trace of the famous city of ancient times. This is only to be expected, as the whole of Hastinapur was washed away by the Ganges.

The story of Hastinapur is to be found in the Mahabharata, which records the history of the Lunar race. It was founded by Hastin, a descendant of Bharata, the mighty king of the whole earth. From him came the Panchalas, the five sons of Haryaswa, and from them came Pandu, the father of the Pandavas who founded Indra-prastha on the Jumna. The Pandavas fought the Kauravas of Hastinapur, and defeated them, Yudhishthira being installed as Raja there. On the retirement of the Pandavas from worldly affairs the kingdom passed to Parikshit, the grandson of Arjun. His family ruled in Hastinapur for four generations, when the city was destroyed and the capital removed to Kausambi.

A small fair is held here at the time of the full moon of Kartik and is attended by about 5,000 persons, principally Saraugis.

HASTINAPUR *Pargana, Tahsíl* MAWANA.

This pargana comprises the northern and larger half of the tahsíl, being bounded on the south by Kithor, on the west by Meerut, on the east by the Ganges and on the north by the Muzaffarnagar district. It has a total area of 152,154 acres or nearly 238 square miles.

The main feature of the eastern half of the pargana is the river Ganges, the bed of which is separated from the upland by a steep bank which is broken by series of intricate ravines at the foot of which throughout their length lies the swampy channel of the Burhganga. Between this and the Ganges lies a broad stretch of khádir, which stands fairly high and may be described as a generally dry tract intersected by a number of channels. There is a small amount of cultivation in the khádir, but the land has greatly deteriorated of late years and is now mainly used for the purposes of grazing.

The upland portion of the pargana consists of a series of shallow valleys separated by lines of sandy *bhur*, but these are in the main confined to the eastern half. One well-marked line of *bhur* runs down the edge of the high bank above the ravines, while another follows the canal throughout its course, sending off two narrower spurs on both sides in the neighbourhood of Mawana. A third line of *bhur* extends in a south-westerly direction from the point where the canal enters the district. The soil between these sandy ridges is of all qualities, but the north-west of the pargana consists of a fine level plain of very superior character. A second similar but smaller tract is to be found in the south of the pargana in the neighbourhood of Mawana town. In the south-west there is an outlying tract much of which has been infected with *reh*, and here the eastern Chhoiya has its origin.

In 1308 Fasli 84,444 acres, or somewhat more than 55 per cent. of the total area, were cultivated, the greater proportion of the remainder consisting of the unculturable waste of the khádir. The pargana is practically secure from the effect of drought owing to the presence of the Anupshahr branch of the Ganges canal, which runs from north to south through the centre of the tract. Owing to this there has been a marked improvement in

irrigation, the actual irrigated area in 1308 Fasli being 23,262 acres, of which 19,916 acres were watered from the canal, 3,260 acres from wells and 86 acres from other sources. There has been a large decline in the area irrigated from wells, especially as this means is only practicable in the western half of the pargana which receives the greatest benefit from the canal. In the eastern portions the construction of wells is either impossible or very difficult, owing to the large amount of sand in the subsoil. Before the canal came this must have been a singularly arid and unfertile tract, and its improvement during the last half century has been enormous. The kharíf is the principal harvest, the chief staples being sugarcane, juar, bajra, rice, maize and the inferior pulses, such as moth and mung. In the rabi wheat largely predominates, followed at a considerable distance by gram and peas: somewhat over 15 per cent. bears a double crop. The increase in sugarcane cultivation during the last few years has been considerable, while cotton and bajra have declined proportionately. In the khádir the chief crops are barley, rice and cane, the kharíf harvests being much more important here than in the rest of the pargana.

The total revenue of the pargana now stands at Rs. 1,96,561 being at the rate of Rs. 2-6-10 per acre of cultivation. In 1840 the demand was Rs. 1,14,462, rising to Rs. 1,48,780 in 1866. While there has been a very large decrease in the cultivation of the khadir, the development of the rest of the pargana has proceeded rapidly, as is evident from the fact that the recent enhancement for the whole tract amounts to over 30 per cent. Occupancy tenants hold 41 per cent., while 31 per cent. is in the hands of tenants-at-will, the remainder being cultivated by the proprietors. The rents paid by occupancy tenants have been considerably enhanced of late years, but are comparatively low when examined side by side by those paid by tenants-at-will. The average rental in the case of occupancy tenants ranges from Rs. 6-14-0 to Rs. 5-12-0 according to the circles framed at the recent settlement, while those of tenants-at-will varied from Rs. 11-8-0 to Rs. 7-15-0 per acre. The greater part of this pargana is held in pattidari tenure, both perfect and imperfect; next comes single and joint zamindari, while bhaiyachara, which

is a marked feature in the western half of the district here, holds a subordinate position. The largest proprietors are Hafiz Abdul Karim of Meerut and the Rani of Landhaura; about one-third of the latter's property lies in the khádir, but it also includes some of the best villages of the pargana, such as Bahsuma and Niloha. The late Muhammad Ali Khan of Meerut held an almost equally large property, but this has recently been divided among his heirs. The Saiyids of Sambalhera and Abdullapur hold considerable properties, and several villages are in the hands of the Banias of Mawana and Bahsuma. Of the cultivating proprietors the most important are the Gujars and the Jats. The former have always been strong in this pargana since the time of Raja Nain Singh, with whom the Gujars of Bahsuma claim relationship. The Jats hold a fair proportion of the best land and many villages in the south-west of the pargana, the remainder belong to Tagas, Chauhans and the Mírs of Phalauda, the tract adjoining that village being generally known as Mirwara. More than half of the tenants are Gujars and Jats, the remainder being of all castes, but chiefly Tagas, Chamars, Rajputs and Musalmans.

The total population of the pargana at the last census numbered 101,165 persons, of whom 53,273 were males and 47,892 females. Classified according to religions, there were 75,092 Hindus, 21,867 Musalmans and 1,199 others, Aryas, Jains, Sikhs and Christians. There has been a large increase in the last forty years, for in 1872 the census returns gave a total of 75,344 persons, which rose to 92,585 in 1891. The principal town of the pargana is the municipa lity of Mawana, where the headquarters of the tahsíl are located. Phalauda and Bahsuma are small towns of some importance, while Niloha, Mawana Khurd, Bhainsa, Sathla and Ganeshpur also possess considerable populations. The chief market is at Mawana, but there are also small bazárs at Bahsuma, Niloha, Sathla and one or two other villages. Prior to 1852 the pargana of Hastinapur consisted of two parganas known by the name of Niloha and Tarapur. In 1853 Hastinapur consisted of 166 villages which are now demarcated as 174.

The pargana is somewhat destitute of means of communication as it has neither railway nor metalled roads. A second class

road runs from Meerut to Bijnor through Bahsuma with a loop-line passing through Mawana. A similar road runs from Kithor and Parichhatgarh to Mawana, whence it turns north-west to Phalauda, which is also connected with Meerut by another unmetalled road passing through Lawar. There are post-offices at Mawana, Bahsuma and Phalauda. On the canal there are inspection bungalows at Dhakauli, Firozpur and Sakhoti.

INCHAULI, *Pargana and Tahsíl* MEERUT.

A large village on the road from Meerut to Bahsuma and Bijnor, at a distance of nearly eight miles from Meerut. It is a small agricultural place with a small market, and a population in 1901 of 2,904 persons, of whom 1,794 were Musalmans, chiefly Sheikhs. There was formerly a police-station here, but it has been reduced to a fourth-class station or outpost. It also contains a post-office and an aided school. Adjoining Inchauli on the west is the small village of Muzaffarnagar Saini, where there is a station of the Great Trigonometrical Survey, in latitude 29° 2′ 21″ north and longitude 77° 48′ east, at an elevation of 831 feet above the sea. The upper mark-stone of the survey is fixed on a very high mound of broken bricks which is said to represent by common tradition the great gate of Hastinapur. The base of the mound on which it is built is clearly of masonry above which the layers of brick are still visible.

JAGAULA, *Pargana* LONI, *Tahsíl* GHÁZIABAD.

A small village on the Grand Trunk Road between Ghâziabad and Dehli, at a distance of four miles from Gháziabad and 28 miles from Meerut. From it a branch road leads north-west to Loni and Baghpat. It is noticeable as possessing an outpost of the Gháziabad police-station. The village lies in latitude 28° 41′ north and longitude 77° 23′ east. It was close to this point that the rebels took up their position on the high sandy ridge above the Hindan to the east of the village, on the occasion of the two actions fought by Brigadier Archdale Wilson on his way from Meerut to join the main force before Dehli.

JALALABAD, *Pargana* JALALABAD, *Tahsíl* GHÁZIABAD.

This village, which gives its name to the pargana, is a purely agricultural place of no importance. It lies in latitude 28° 46′ north and longitude 77° 33′ east, a mile and a half to the east of the metalled road from Meerut to Gháziabad, near the point where it crosses the Ganges canal at a distance of 17 miles from Meerut. Parallel to the road runs the North-Western Railway, with the station of Muradnagar close to the south-western corner of the village. The town of Muradnagar lies two miles to the west. The population of Jalalabad in 1901 numbered 2,971 persons, of whom 2,454 were Hindus, 441 Musalmans and 76 Aryas and Jains. The bulk of the Hindus are Jats, who are the proprietors of the village. There is a post-office here and a village school. Close to the village on the west runs the Jalalabad distributary of the Ganges canal.

JALALABAD *Pargana, Tahsíl* GHÁZIABAD.

This is the largest of the three parganas that compose the Gháziabad tahsíl and lies to the north of Dasna between the Hindan river on the west, which separates it from Loni and Baghpat, and the parganas of Hapur and Sarawa on the east. To the north lies the large pargana and tahsíl of Meerut. It has a total area of 128,157 acres or 200 square miles.

Along the Hindan there is a narrow khádir which is more sandy and precarious than in the northern parganas, but which in places bears distinctly good crops. Above the khádir there is the usual high bank, the surface of which is broken with ravines and the soil is poor and sandy. This gives place to a level tract of good soil which is better generally in the north than in the south; there is a small depression which begins to the west of Muradnagar and runs south-eastwards into Dasna. The eastern portion of the pargana lies low in a basin which extends as far as the extreme eastern borders where there are a few villages on higher land. It is imperfectly drained by the Chhoiya and other tributaries of the Kali river and by a series of artificial drains which, while they carry off the water from a very large tract of country, appear to do a considerable amount of injury to the villages in the immediate neighbourhood. It

is a universal complaint on the part of the zamindars through whose villages a drain passes, that they have suffered serious damage from it; and though their complaints are undoubtedly exaggerated, it is true that in some villages a considerable area has gone entirely out of cultivation, because the neighbouring drain has made the land so precarious that the zamindars do not consider it worth cultivating. Complaints of deterioration are also frequently made with regard to the Hindan *khádir*, a possible cause being the construction of the dam near the railway bridge in pargana Loni, which appears to have raised the water-level in the khádir above it, the result being that *reh* has made its appearance in many places and the land has been injured in consequence.

Of the total area 96,253 acres or 75 per cent. were cultivated in 1308 fasli, showing an increase of 6,265 acres since the recent settlement. The barren area amounts to 17,785 acres and consists chiefly of *úsar* or poor sandy land which is not worth cultivating. The grove area is larger here than in any parganas of the district, and amounts to 1,196 acres. The rabi is the principal harvest and nearly 20 per cent. bears a double crop. The chief staples are wheat, gram and peas in the rabi and maize, sugarcane, cotton and indigo in the kharíf. Both maize and sugarcane have increased in area during the recent years—a change which points to the more extensive cultivation of the more valuable crops and betokens either an improvement in husbandry or, as is more probable, an increased pressure on the cultivators. The pargana possesses ample means of irrigation; for through the centre from north to south passes the main Ganges canal from which a number of distributaries run in every direction. Besides this, there are a large number of wells, but these have been very largely superseded by the canal. In 1308 fasli the irrigated area amounted to 36,875 acres, of which 32,915 acres were watered from the canal, 3,726 acres from wells and 234 acres from other sources. The disappearance of well irrigation is strikingly illustrated by the fact that about thirty years ago half the irrigated area was watered from wells.

The revenue of the pargana now stands at Rs. 2,54,730, being at the rate of Rs. 2-13-3 per acre of cultivation. In 1840 the

demand was fixed at Rs. 1,43,580, rising to Rs. 1,75,855 in 1866. Sir H. M. Elliot's assessment of 1840 was extremely light, and as a result Mr. Forbes was compelled at the following settlement to adopt very easy rates in order to avoid an excessive enhancement. The same difficulty continued at the recent revision, inasmuch as even with the high increase of 39·38 per cent. the revenue amounts to only 46·74 per cent. of the net assets. The rental, too, in the pargana is comparatively low, the rates varying greatly according to the nature of the soil, but being generally much lower than those prevailing in the northern parganas. More than half of the pargana is held on bhaiyachara tenure, the remainder consisting of zamindari and pattidari villages in an almost equal proportion. The largest landholders are Hafiz Abdul Karim of Meerut and his family. The greater part of four villages belongs to the Banias of Meerut, who are known as the Pattharwalas, and a small estate is held by a Mahajan of Hapur. The bulk of the remainder belongs to Tagas and Jats; the former own a larger area, but the Jats' estates are superior in quality. A noticeable feature in this pargana is that many of these families belonging to cultivating communities have considerable possessions in outside villages. The chief are the Tagas of Niwari, Bhadauli and Morta and the Jats of Begamabad, Abupura and Bisokhar. In the Hindan khádir there are several villages belonging to Ahirs whose headquarters are at Surana. In the south-east corner of the pargana there are a few Rajputs, but they are not so prosperous or such good cultivators as their neighbours in Dasna. Formerly the Tagas held a much larger area, but on account of rebellion and murders committed in 1857 seven of their villages were confiscated. These proprietors also form the chief cultivating classes, while Chamars and Musalmans are engaged in husbandry in large numbers.

The total population of the pargana at the census of 1901 amounted to 124,667 persons, of whom 66,242 were males and 58,425 females. Classified according to religions there were 99,369 Hindus, 24,353 Musalmans and 945 others, mainly Aryas. There has been a large increase here as elsewhere during the last thirty years, for in 1872 the total was 105,559 persons, rising to 107,500 in 1891. The pargana contains 154 villages, and among

these there are several small towns such as Faridnagar, Muradnagar and Begamabad. Of the larger villages Surana, Jalalabad, Niwari and Patla have been separately mentioned, while Morta, Kalchina, Sultanpur, and Khandaura also possess considerable populations, but are merely large agricultural villages undeserving of special notice. There are no special manufactures in the pargana, but there is a good deal of market-gardening in Faridnagar and Muradnagar where there are small bazárs, as also in most of the larger villages such as Patla and Begamabad.

Means of communication are distinctly good. The North-Western Railway runs through the centre of the pargana with stations at Muradnagar and Begamabad and a third at Mohiuddinpur on the northern boundary. Parallel to the railway runs the metalled road from Meerut to Dehli, which is crossed at Begamabad by a branch road leading from Baleni to Hapur with branches to Faridnagar and Patla, while another cross road runs from Muradnagar to Surana and Baghpat, crossing the Hindan by a ferry.

The pargana was formed in the reign of Akbar and was included in Sarkar Dehli. In 1809 Jalalabad was included in the tahsíl comprising the parganas of Ajrara, Sarawa, Bhojpur and Jalalabad. Its present boundaries were defined at the settlement of 1840. All the important places have already been mentioned, but there are one or two buildings and remains deserving of mention. At Sultanpur there is a fine temple built by Jats and known as the Shamji-ka-Mandir. At Rauli, on the road from Muradnagar to Baghpat, there is a fine temple, and at Sikri Khurd a temple of Kalka Debi at which a small fair is held in Chait and Asar. Arifpur possesses a fine tank, and Muqimpur has the ruins of a small fortress built by Gulab Singh, which was demolished by the British in 1861. The village of Bhojpur, near Faridnagar on the road from Begamabad to Hapur, was formerly the headquarters of a tappa, and subsequently of a pargana and contains a few remains of interest.

There are post-offices at Jalalabad, Faridnagar, Begamabad and Muradnagar. Besides the District Board bungalow at

Begamabad, there are canal bungalows at Niwari, Muradnagar, Ghiaspur, Sultanpur, Bhatjan and Kalchina.

JANI, *Pargana and Tahsíl* MEERUT.

Jani is a village situated, in latitude 28° 57′ north and longitude 77° 34′ east, near the left bank of the main branch of the Ganges canal and on the metalled road from Meerut to Baghpat, at a distance of eleven miles from Meerut. There are two sites known as Jani Buzurg and Jani Khurd; the latter lies on the road and is the more important, while the former is close to the canal and half a mile to the south-east. Jani Khurd contains a second-class police-station, a post-office and a village school. Jani Buzurg possessed in 1901 a population of 1,694 persons, of whom 1,087 were Musalmans: that of Jani Khurd was 1,640, Musalmans numbering 267. A weekly market is held at the latter place.

KAHWAI, *Pargana and Tahsíl* SARDHANA.

A large village in the north-western corner of the pargana, situated, in latitude 29° 6′ north and longitude 77° 28′ east, on the high ground above the left bank of the Hindan river opposite Barnawa. It lies about two miles south of the road from Sardhana to Baraut and 16 miles from Meerut. It had in 1901 a population of 3,636 persons, of whom 1,405 were Hindus, 2,030 Musalmans and 201 Jains. Of the Hindus a large number are Chauhan Rajputs, as also are many of the Musalmans. These Chauhans are the proprietors of the village. It is a very old place and was made the headquarters of a tahsíl by the Begam Bala Bai of Gwalior. There is a Government primary school here, and the remains of an old fort.

KAILI, *Pargana* SARAWA, *Tahsíl* HAPUR.

A village on the west side of the road from Hapur to Meerut, situated in latitude 28° 48′ north and longitude 77° 46′ east, at a distance of five miles north from the tahsíl headquarters and 15 miles from Meerut. It is only important as possessing an out-post of the Hapur police-station. The population in 1901 was 1,754, most of the inhabitants being Taga Brahmans who own Kaili

and three other small estates. A portion of the village belongs to the Tagas of Panchi, an adjoining village on the north-west.

KANKAR KHERA, *Pargana and Tahsíl* MEERUT.

A large village on the road from Meerut to Sardhana, situated, in latitude 29° 1′ north and longitude 70° 42′ east, at a distance of two miles from Meerut and adjoining the cantonment railway station. It is united with the village of Baksar Khera on the opposite or eastern side of cantonments, to form a town under Act XX of 1856. There are police-stations and post-offices at both of these places. The population of Kankar Khera at the last census numbered 2,641 persons, of whom 1,882 were Hindus, 711 Musalmans and 48 Christians, while Baksar Khera contained 1,801 inhabitants, of whom 1,434 were Hindus and 367 Musalmans. Chamars are the prevailing Hindu caste. In 1901 out of 1,454 houses in the two villages, 1,187 were assessed to taxation, the income from the house-tax being Rs. 1,617, at the rate of Re. 1-5-1 per assessed house and Re. 0-5-3 per head of population. The total income, inclusive of a balance of Rs. 161 from the preceding year, amounted to Rs. 2,249. The expenditure for the same year amounted to Rs. 1,896, of which Rs. 715 were devoted to the up-keep of the town police, Rs. 374 to local improvements and Rs. 642 to conservancy.

KAPSADH, *Pargana and Tahsíl* SARDHANA.

A large village in the north-east corner of the tahsíl lying to the south of Salawa, about half a mile from the left bank of the Ganges canal at a distance of five miles from Sardhana and fifteen miles from Meerut. The lands of the village are irrigated by the Dabathua and Salawa distributaries of the canal. It has a population of 3,187 persons, of whom 2,724 are Hindus, 397 Musalmans and 166 Jains. Rajputs form the bulk of the Hindu population and are the owners of the village. Kapsadh lies in latitude 29° 12′ north and longitude 77° 41′ east.

KARNAWAL, *Pargana and Tahsíl* SARDHANA.

A large village in the south of the pargana between the road from Sardhana to Aminnagar and Baghpat and that from Sardhana

to Baraut, situated in latitude 29° 6′ north and longitude 77° 32′ east, at a distance of 15 miles from Meerut and six miles from Sardhana. It is an old Jat settlement with a population of 5,016 persons, of whom 435 are Musalmans and 195 Jains. The Jats are said to have appropriated Karnawal over 200 years ago. At first they erected a new village, but in course of time they got possession of the old village and abandoned the new site which is still visible in the shape of a large *khera*. At a little distance from the present site are the remains of a very large village which is said to have been seized from the Rajputs by the invading Musalmans and then destroyed by fire. In Karnawal there is a Government primary school and a canal bungalow.

KHANPUR, *Pargana* KITHOR, *Tahsil* MAWANA.

A village in the Ganges khádir lying between the Burhganga, which is here crossed by a ferry, and the Ganges, at a distance of 24 miles east of Meerut with which it is connected by an unmetalled road leading through Parichhatgarh. There is a second-class police-station here which was formerly located in the hamlet of Kamr-ud-dinnagar, but this was washed away by floods a few years ago. The old village of Khanpur was also destroyed in the same manner in 1873. There is a much-frequented ferry over the Ganges leading to Moradabad, and this was the route taken by Amir Khan Pindari in 1805 when he made his raid into Rohilkhand. The village belongs to the Sheikhs of Hapur, and had in 1901 a population of 853 persons, many of whom are Gujars. It lies in latitude 28° 57′ north and longitude 78° 6′ east.

KHARKHAUDA, *Pargana* SARAWA, *Tahsil* HAPUR.

A small town lying, in latitude 28° 50′ north and longitude 77° 45′ east, on the west side of the metalled road from Meerut to Hapur, at a distance of eleven miles from the former. It is a very ancient place and is said to have contained the horse and elephant stables of the Hastinapur Rajas; the local derivation being from 'Kharak' a stall. The town began to flourish in the reign of Humayun and has grown considerably of late years. It now possesses 3,928 inhabitants, of whom 407 are Musalmans. The majority of the Hindu population are Taga Brahmans, to

whom the village belongs, as well as six other whole villages and several pattis in the neighbourhood. The place possesses a second class police-station, a district post-office and a school. The market is of considerable local importance, but a good deal of trade has been diverted to Hapur since the opening of the railway. It is probable that it will, however, recover with the construction of the line from Meerut to Hapur and Khurja. There is a military encamping-ground here on the route from Aligarh to Meerut, and in the south-eastern corner there is a stone bench-mark of the Trigonometrical Survey, showing a height of 713 feet above the level of the sea. A small fair is held annually in the village.

KHATTA-PAHLADPUR, *Pargana and Tahsíl* BAGHPAT.

A large village, in latitude 28° 55′ north and longitude 77° 21′ east, near the eastern bank of the Jumna canal and on the road from Baghpat to Muradnagar, at a distance of eight miles from the former and 24 miles from Meerut. It contained in 1901 a population of 2,977 inhabitants, of whom 2,295 were Hindus, 309 Musalmans, and 377 Jains and Aryas. There are large numbers of Rajputs; many of them are of the Gahlot clan and are the owners of the village. The neighbouring village of Mitli, which lies on the north side of the metalled road from Baghpat to Meerut, belongs to the same family of Rajputs who remained loyal during the mutiny and rendered good service to the refugees from Dehli. There is an indigenous school here, supported by a grant-in-aid from Government.

KHEKRA, *Pargana and Tahsíl* BAGHPAT.

A town in the south of the pargana on the high bank of the Jumna. It lies in latitude 28° 52′ north and longitude 77° 17′ east, a short distance east of the road from Baghpat to Loni and Shahdara, and is connected with Baghpat by a branch road that takes off at Katha. The distance to Baghpat is about eight miles and to Meerut 26 miles. It contains a third-class police-station, a post-office and an upper primary school. At the census of 1901 the population of the place was 8,918 persons, of whom 4,732 were males and 4,186 females. Classified according to religions there were 6,999 Hindus, 1,274 Musalmans and 645

Jains and others. There is a fine Jain temple in the town. The lands of Khekra are irrigated by a distributary of the Jumna canal. The place belongs to Jats, who form the bulk of the Hindu population and hold it on bhaiyachara tenure. It is said to have been founded some 1600 years ago by Ahirs, to whom it first belonged. The Jats emigrated from Sikandarpur about a thousand years later and drove out the Ahirs from all except one patti. During the mutiny the inhabitants of patti Chakarsainpur-Raghunathpur rebelled, and the land was confiscated and given to the zamindars of Khekra Khas, who were allowed a remission of one-fourth of the revenue during their lifetime on account of their loyalty.

Khekra is a rising place and is now the chief grain and sugar mart in the tahsíl. Its population in 1853 was only 5,823 persons and the place has grown both in trade and numbers at the expense of Baghpat. It is administered under Act XX of 1856, and in 1901 the income was Rs. 2,659 including a balance of Rs. 215 from the preceding year. The house tax realized amounted to Rs. 2,095. There are 2,738 houses in the town, of which 2,100 are assessed to taxation, the incidence being Re. 1 per assessed house and Re. 0-3-3 per head of population. The expenditure for the same year amounts to Rs. 1,900, of which Rs. 731 were devoted to the up-keep of the town police, Rs. 456 to conservancy and Rs. 425 to local improvements. The police force consists of fifteen men of all grades.

A small fair is held here in honour of Burha Baba, but it is of merely local importance.

KIRTHAL, *Pargana* CHAPRAULI, *Tahsíl* BAGHPAT.

A large village in the north-east of the pargana, situated in latitude 29° 15′ north and longitude 77° 15′ east, some two miles west of the Jumna canal and connected with Tanda by an unmetalled road at a distance of about 40 miles by road from Meerut. The village stands on a slightly raised site and is bounded on the west by a wide expanse of water, which is drained into the Jumna by a cut joining the river at Lohari, a distance of 12 miles. The place is poor in appearance, being very damp and destitute of any respectable roads. On account of

the excessive moisture it has a bad reputation for unhealthiness. At the census of 1901 the population numbered 5,850 persons, of whom 952 were Musalmans and 477 Jains. Of the Hindus the majority are Jats, who are the owners of the village. The place is said to have been founded by one Kirat, a mali who called the place after his own name Kirat Sthala. This must have been some 1100 years ago, before the immigration of the Jats. There is a village school here.

KITHOR, *Pargana* KITHOR, *Tahsíl* MAWANA.

The capital of the pargana lies, in latitude 28° 52′ north and longitude 77° 57′ east, on the high road from Meerut to Garhmuktesar, at a distance of 16 miles from the former. To the east of the town flows the Anupshahr branch of the Ganges canal and parallel to this an unmetalled road runs northwards to Parichhatgarh and Mawana. The main site stands to the north of the metalled road and drains into a great excavation to the south. The eastern portion of the site is often flooded during the rains. There is a small square bazár surrounded with a few poor shops on the main road, while the houses stretch in an irregular line westwards and parallel to the highway. In the midst of the town are the ruins of the fort of Rája Nain Singh. The place contains a police-station, a post-office, a District Board bungalow and a school. It was formerly the headquarters of tappa Kithor in pargana Sarawa and formed with Puth a portion of the estate of the Gujar Rája, Nain Singh. It is now purely an agricultural place and no trade of any kind. It contains a population of 4,821 persons, of whom 1,507 are Hindus, 3,627 Musalmans and 47 Sikhs and others. Of the Musalmans the majority are Nau-Muslims.

KITHOR *Pargana, Tahsíl* MAWANA.

This pargana forms the southern half of the tahsíl, lying between Hastinapur on the north and Hapur and Garhmúktesar on the south. Along the eastern boundary flows the river Ganges, while to the west lies the pargana and tahsíl of Meerut. Like the other riverain parganas, Kithor may be divided into the khádir or lowlands in the river valley and the bangar or

uplands. The khádir consists of an extensive tract bounded on the west by the Burhganga, which represents an old bed of the Ganges and flows with an irregular course resembling rather a series of swamps than a river, under the old high bark. East of the Burhganga there is a stretch of high-lying land, which is generally beyond the reach of the ordinary floods on which a certain amount of cultivation is carried on, but the soil for the most part is poor, being light and sandy except in the western half, where it is known as permanent khádir and contains a fair proportion of heavy soil in which rice and cane are grown, although the latter has gone very much out of cultivation during recent years.

All along the edge of the khádir we find the usual line of ravines, which in this pargana are very steep and rugged and altogether beyond the reach of the plough. They contain a certain amount of grass jungle, but very few trees—since for some reason the babul does not seem to flourish here. West of the ravines we find a tract of poor sandy soil with a few well-marked ridges of poor sand. In a few villages the nature of these soils has been improved by careful cultivation, but originally the whole of this tract was nothing but *bhur*. Down the centre of the pargana flows the Anúpshahr branch of the Ganges canal and on both sides of this are found the best villages, such as Parichhatgarh, Puthi, Kithor, Sháhjahánpur and Chandlawad. West of this again comes the main bhur ridge, which enters Kithor in two branches, one running due south from the borders of Hastinapur and the other curving in a semi-circle which extends as far as the western border and then turns south-east to join the main ridge. The remaining villages of this part of the pargana are of very varying quality, the soil chiefly depending on the level. All along the western boundary runs the stream known as the Eastern Chhoiya, in the neighbourhood of which there are several tracts of low-lying soil infected with *reh*. The land between the Chhoiya and the Burhganga is drained by two artificial cuts which follow the central line of depression, leaving the pargana in the south-west corner.

The total area of Kithor amounts to 124,832 acres or 195 square miles. Of this in 1308 fasli 86,683 acres or nearly

70 per cent. were cultivated, showing a very considerable increase since the recent settlement. The barren area amounts to 9,225 acres and consists chiefly of poor unculturable sand. The presence of the canal has greatly increased the amount of irrigation in this pargana, the actual irrigated area in 1308 fasli being 20,956 acres, of which 17,738 acres were watered from the canal, 3,106 acres from wells and 112 acres from other sources. The amount of well irrigation has here, as elsewhere, decreased, but its place has been more than supplied by the canal. At the same time the number of masonry wells has actually increased during the last thirty years, although the unprotected wells, which were never numerous, have almost entirely disappeared. Their scarcity is now, as it always has been, due to the nature of the subsoil, and their construction was only possible in those villages which are now supplied from the canal. The kharíf is the principal harvest throughout the pargana, the difference being most marked in the khádir. The double-cropped area now stands at somewhat over 13 per cent. The principal staples are juar, sugarcane, maize, bajra and cotton, as well as a considerable proportion of the inferior autumn pulses, such as moth and mung. The great extension of sugarcane cultivation is mainly due to the construction of the canal, the water of which seems particularly adapted to this crop. In the rabi wheat takes the lead, followed at a long distance by gram, peas and barley. The present revenue demand amounts to Rs. 1,64,765, being at the rate of Rs. 2-1-11 per acre of cultivation. In 1840 the jama was fixed at Rs. 92,237, rising to Rs. 1,19,380 at Mr. Porter's settlement of 1866. The present enhancement is very high, amounting to 33·71 per cent., which points to a very material development, in view of the fact that in many cases the assessment stands below 45 per cent. of the net assets. The rents paid by tenants-at-will run very high, ranging from Rs. 16 to Rs. 2-4-0 per acre, according to the circles framed at the settlement. The occupancy rentals are lower and seldom rise above Rs. 7 per acre in any village of the pargana. There has been a large enhancement in the occupancy rental of late years, but not in proportion with the rise of the revenue.

Bhaiyachara is the most common form of tenure, but an almost equally large area is held in imperfect pattidari. At the same time zamindari tenure is rather more prevalent here than in most of the parganas of the district. Of the zamindars the chief are the Saiyids of Hapur, who own three whole villages. Sheikh Abdul Karim of Meerut and the Sheikhs of Hapur also possess some properties here, while the only other non-resident zamindars deserving of mention are the Gujars of Landhaura and the Pattharwala Banias of Meerut. Among the cultivating communities the most important are the Jats and Tagas, who hold approximately equal shares; next come the Gujars and following them the Mahesris. In the north-west corner there is a colony of Ahirs, who own three excellent villages. Kithor in former days contained the only taluqdari estate of the district, which was known as Parichhatgarh and consisted of six villages held in jagir by Rani Sahib Kunwar up to her death in 1854, when they lapsed, and at the subsequent settlement engagements were taken from the village communities. In the khádir there is a large area of grazing land which attracts numbers of Gujars. Nearly half the pargana is cultivated by the proprietors, the remaining tenants being chiefly of the same castes. Musalman cultivators are very numerous, while the greater portion of the field labour is done by Chamars.

The population of the pargana in 1901 amounted to 99,234 persons, of whom 52,208 were males and 47,026 females. Classified according to religions there were 70,345 Hindus, 27,578 Musalmans and 1,311 others, chiefly Sikhs and Aryas. In 1872 the census returns gave a total of 70,125 souls, which rose to 85,283 in 1891. The largest town in the pargana is Parichhatgarh, while Kithor, Sháhjahánpur and Chandlawad, which adjoin one another in the extreme south of the pargana, are small towns with considerable populations. Other large villages deserving of mention are Aghwanpur, Laliana and Khajuri. The principal markets are at Parichhatgarh, Sháhjahánpur and Chandlawad. The pargana contains in all 128 villages. Up to 1866 it was much smaller, comprising only 52 villages, but 75 were subsequently received from Meerut and adjoining parganas.

There is no railway in the pargana, but through the south-western portion runs the metalled road from Meerut to Garhmuktesar, traversing Kithor, where there is a District Board bungalow, and Sháhjahánpur. A second-class road from Meerut runs to Parichhatgarh and thence eastwards to Khanpur on the Ganges, where there is a police-station, and close to this village it crosses this river by a ferry known as Kamr-ud-dinnagar Ghat leading to Moradabad. A third road runs due north from Kithor to Parichhatgarh and Mawana to the west of, and parallel to, the canal.

There are post-offices at Kithor and Parichhatgarh and canal inspection-bungalows at Parichhatgarh, Raidhana, Shahjahanpur, Asafabad, Bhatipura and Shahzádpur.

KUTANA, *Pargana* KUTANA, *Tahsíl* BAGHPAT.

The capital of the pargana lies, in latitude 29° 6′ north and longitude 77° 10′ east, on the high bank of the Jumna, at a distance of eleven miles from Baghpat and 34 miles from Meerut. Unmetalled roads lead to Baghpat and Baraut. There is a police-station and a post-office here and some trade in timber and bamboos, as well as considerable export trade in grain. The place is said to have been founded in the time of the Pandavas. Over 100 years ago the people of Adilpur, mostly Tagas, were admitted into this village. It now contains a population of 3,025 persons, of whom 1,611 are Hindus, 1,209 Musalmans and 215 Jains; the latter are Saraugis and are the principal inhabitants. The place is administered under Act XX of 1856 and in 1901 the income from the house tax and other heads amounted to Rs. 1,408. The total number of houses in the town is 1,494, of which 723 are assessed to taxation, the incidence being Re. 1-5-3 per assessed house and Re. 0-4-7 per head of population. The expenditure for the same year amounted to Rs. 1,216, of which Rs. 526 were devoted to the up-keep of the police, Rs. 286 to local improvements and Rs. 216 to conservancy.

KUTANA *Pargana, Tahsíl* BAGHPAT.

This pargana lies along the left bank of the Jumna river between Chaprauli on the north and Baghpat on the south. To

the east lies pargana Baraut. It is roughly rectangular in shape and covers a total area of 48,853 acres or 72 square miles. In the immediate neighbourhood of the Jumna there is a small amount of khádir, but this is of very little importance. On the high bank there are a few villages which stand too high for canal irrigation and water is at a too great depth for wells, while sand predominates in the soil. With this exception, however, the entire pargana presents one uniform soil of rich black loam of surprising fertility that in richness and prosperity is only second to Baraut. In the south-east corner there are two villages which adjoin the low-lying tract of pargana Baraut, and parts of two other villages in the north are also included in the extension of the same depression.

Of the total area 38,152 acres or 78 per cent. are cultivated, and about 23 per cent. bears a double crop. There are ample means of irrigation owing to the proximity of the Eastern Jumna canal, the distributaries of which traverse the pargana in every direction. Besides this there are numbers of wells which can be easily dug almost everywhere with very little trouble and expense. In 1308 fasli the total irrigated area amounted to 15,605 acres, of which 12,378 acres were watered from the canal, 3,170 acres from wells and 57 acres from other sources. These figures naturally vary very largely according to the nature of the rainfall in each year, and at the time of settlement the irrigated area was as much as 24,237 acres, which shows that the pargana is practically secure against the evil effects of drought. The kharíf harvest considerably exceeds the rabi, the principal staples being juar, sugarcane, maize and cotton. In the rabi wheat largely predominates, while almost the whole of the remainder is taken up by gram, peas and other pulses. The pargana is very fully developed and there is little room for any extension of cultivation, the available grazing area being already reduced to the barest minimum.

The revenue now stands at Rs. 1,27,790, being at the rate of Rs. 3-6-11 per acre of cultivation. In 1840 it was assessed by Mr. Plowden at Rs. 87,873, which rose at Mr. Forbes' settlement of 1866 to Rs. 99,925. The enhancement at the last revision has been considerable, amounting to 27·66 per cent., the

jama being calculated at 48·86 per cent. of the net assets. The rental of the pargana varies according to the nature of the soil, the average rate being Rs. 7-9-1 per acre. This is somewhat less than the prevailing rate in Baraut owing to the presence of a larger proportion of *bhur* or sandy soil. Over two-thirds of the pargana are cultivated by the zamindars themselves, while of the remainder 4,275 acres are held by occupancy tenants and 6,239 acres by tenants-at-will. The commonest tenure is bhaiyachara, which prevails over more than 81 per cent. of the whole area; the remainder is chiefly held on imperfect pattidari tenure with a small proportion of joint zamindari. More than two-thirds of the pargana belongs to the Jats, the remaining by Rawas, Tagas and Brahmans. The cultivators, too, are Jats with a small admixture of Tagas, Brahmans, Rajputs and other castes, such as Chamars, Kahars and Musalmans.

The total population of the pargana at the last census of 1901 numbered 53,715 persons, of whom 28,683 were males and 2,503 females. Classified according to religions there were 46,793 Hindus, 5,269 Musalmans and 1,653 others, chiefly Saraugi Jains. In 1872 the total was 45,561 souls, rising to 46,528 in 1891. Kutana is the only town in the pargana, but there are several very large villages, the chief of which are Sarurpur, Sadiqpur-Sanauli, Sujra and Shahpur. The most important market is at Kutana, while nearly all the large villages have their little bazárs. The pargana is somewhat deficient in means of communication as it possesses no railway or metalled roads. From Kutana two unmetalled roads run to Baraut and to Baghpat, while the south-eastern portion is traversed by a similar road from the latter place leading through Sarurpur to Baraut, from which another branch road goes to Chaprauli through Sadiqpur-Sanauli. There are canal bungalows at Kutana and Sarurpur.

LAWAR, *Pargana and Tahsil* MEERUT.

A large village, lying, in latitude 29° 7′ north and longitude 77° 47′ east, at a distance of twelve miles from Meerut on the unmetalled road leading to Phalauda. It is an unimportant place with a population of 5,046 persons, of whom 2,339 are Musalmans. A small market is held here on Fridays in each

week. It was once of some importance as being the head of a tappa containing 45 villages, including Phalauda, and is said to have been seized from the Rajputs by Mir Surkh, a native of Mazenderan. There is a fine house here called the Mahal Sarai, built about 1700 A.D. by Jawahir Singh, Mahajan, who also constructed the Suraj Kund near Meerut. The gardens attached to it are now in ruins. The village is still held by the Mirs. Lawar is administered under Act XX of 1856. The income in 1901 amounted to Rs. 1,619, inclusive of a balance of Rs. 147 from the preceding year. The house tax yielded Rs. 1,059, with an incidence of Re. 0-15-11 per assessed house and Re. 0-3-4 per head of population. The expenditure for the same year was Rs. 1,020, of which Rs. 609 were devoted to the upkeep of the town police, which consisted of nine men of all grades. There is a Government village school here, and a post-office.

LOHARI, *Pargana* KUTANA, *Tahsíl* BAGHPAT.

A very large village adjoining Kutana on the south-east and situated, in latitude 29° 5′ north and longitude 77° 12′ east, above the high bank of the Jumna, at a distance of ten miles from Baghpat and 35 miles from Meerut. It is a very old Jat settlement and contained in 1901 a population of 3,909 persons, of whom 204 were Musalmans and 88 Jains. A village school is maintained here. Below Lohari the kháдir of the Jumna widens out somewhat; the drainage is carried off by two ravines to the north and south, the latter being utilized as a drainage escape.

LONI, *Pargana* LONI, *Tahsíl* GHAZIABAD.

The capital of the pargana lies, in latitude 28° 45′ north and longitude 77° 18′ east, on the unmetalled road from Baghpat to Shahdara, at a distance of six miles north of the latter and 29 miles from Meerut. A small branch road also takes off from here leading to Ghaziabad. The name is derived from the word "lon," or in Sanskrit "lavana," on account of its being the centre of a salt tract. It appears to be a very ancient place and is said to have been founded by Shahab-ud-din Ghori, who ejected the Rajputs and put in their place a body of Mughals, Pathans and

Sheikhs. From that time the Mughals and Pathans have been the zamindars of the surrounding land, which once belonged to Prithvi Raja, the king of Dehli, the remains of whose fort are still visible. Up to the time of Muhammad Shah, emperor of Dehli, there was another old broken-down fortress of the Hindu period, known as the fort of Raja Sabkaran. It was destroyed in 1789 by Muhammad Shah and the bricks were used to build a tank and a garden. At Uldipur there is a fine grove planted by Zainat Mahal, the wife of Bahadur Shah. It is surrounded by a brick-built wall and close to it is a sarai of five gates. In the grove is a scarlet-domed baradari. The place was confiscated after the mutiny and sold to Sheikh Ilahi Bakhsh of Meerut. There is another grove at Loni known as the Bagh Ranap, which was built about 400 years ago by the wife of some emperor of Dehli. The walls are built of brick, but are in ruins. There are several other remains in the neighbourhood, but few of these are of any importance. Loni contains a third-class police-station, post-office and a school. The population in 1901 numbered 3,325 persons, of whom 1,910 were Hindus, 1,408 Musalmans and seven Jains. The majority of the Hindus are Jats, but the village belongs to Musalmans as already mentioned. Loni is administered under Act XX of 1856 and in 1901 there were 415 houses assessed out of the total number of 725. The income from the house-tax amounted to Rs. 475, being at the rate of Re. 1-6-2 per assessed house and Re. 0-4-0 per head of population. The total income for the year, including a balance of Rs. 147 from the preceding year, was Rs. 824. The expenditure for the same year was Rs. 754, of which Rs. 302 were devoted to the up-keep of the police force, consisting of six men of all grades, Rs. 275 to local improvements and Rs. 108 to conservancy.

LONI *Pargana, Tahsíl* GHAZIABAD.

This pargana occupies the western portion of the tahsíl and comprises the tract of land that extends eastwards from the Jumna to the parganas of Jalalabad and Dasna. To the north lies pargana Baghpat and to the south the Bulandshahr district. Along the northern half of the eastern boundary runs the Hindan river which continues in a southerly direction, cutting off for a

small portion which contains the town of Ghaziabad from the rest of the pargana, and joins the Jumna about twelve miles from the southern boundary. Loni has a total area of 100,083 acres or 156 square miles. The pargana possesses an unenviable reputation for being the worst of the district; as the two rivers approach one another there is a large area of ravines and low-lying land which is of a particularly poor character. On the Jumna side the khádir is sandy and very seriously infected with *reh*. It is broader here than in the north of the district and extends inland for two or three miles. The Hindan khádir is a different character; it suffers little from floods and has a fair light soil. Here also, however, there are complaints of the increase of *reh* and of the deterioration of the soil. The high bank of the Hindan is formed by a line of very rough ravines which extends south as far as the railway and then turns west to join the ravine land of the Jumna. The only good portion in the pargana is a small tract in the north lying on either side of the Jumna canal, which traverses the centre of the pargana and rejoins the river opposite Dehli. The bulk of the cultivation consists of the block of villages around Ghaziabad and those that lie on the sloping plateau above the high banks of the two rivers. Between this circle and the southern line of ravines there is a block of poor villages with an inferior gritty soil and entirely devoid of means of irrigation. The number of precarious villages in this pargana is exceptionally large, numbering as many as 78 out of a total of 119. Another reason for the inferiority of Loni is that the rainfall here is distinctly less than in the north and east of the district.

Of the total area 60,387 acres or nearly 60 per cent. is cultivated, while the barren area is recorded as Rs. 7,785 acres although a great deal more of the remainder consists of very poor land that is practically unfit for cultivation. There is a small amount of irrigation owing to the presence of the canal, the total irrigated area amounting to 6,078 acres, of which 5,386 were watered by the canal, 672 acres from wells and 20 acres from other sources. There has been some small increase in cultivation during the last few years, but the irrigation and the statistics of the district for some mysterious reason show a marked decline,

for in 1866 as many as 23,511 acres are said to have been irrigated, although probably the area was on that occasion largely over-estimated. The rabi harvest somewhat exceeds that sown in the kharíf, the principal staples being wheat, barley, gram and peas. In the kharíf juar and bajra take the lead, followed by maize and cotton. There is comparatively little sugarcane, its place being taken by the inferior kharíf pulses.

The total revenue of the pargana now stands at Rs. 100,387, being at the rate of Re. 1-15-5 per acre of cultivation. In 1840 the demand was fixed at Rs. 76,878 rising to Rs. 95,261 at Mr. Forbes' settlement of 1866. The enhancement is very small, amounting to only 7 per cent., the reason being the deterioration of the inferior villages. Rents also are very much lower here than elsewhere in the district, the average rate for the different circles ranging from Rs. 7-7-0 to Rs. 5-1-0 per acre.

Of the zamindars the most important are Hafiz Abdul Karim of Meerut, who owns shares in nineteen villages, and the Pathans and Sheikhs of Loni. The Pathans of Ghaziabad, the Banias of Farrukhnagar and the Brahmans of Shahdara also own small properties. Among the cultivating proprietors Gujars and Tagas largely predominate. The village of Mandaula in the north of the pargana is a great Taga centre and the same caste holds most of the villages round Ghaziabad. The Gujars are found everywhere and hold most of the villages in the best part of the pargana and also a large amount of the khádir. In the latter they keep the land under grass in order to support their cattle, which according to the general report are frequently acquired under suspicious circumstances. These Gujars have always been a source of trouble and have improved but little on their old reputation. During the mutiny they rose and plundered in every direction, and whole estates were laid waste by their hands, traces of the damage done remaining till many years afterwards. The chief cultivating classes are Gujars, Tagas, Chamars and Musalmans, nearly half the pargana being tilled by proprietors.

The total population of the pargana at the census of 1901 numbered 66,496 persons, of whom 26,211 were males and 30,284 females. Classified according to religions there were

51,793 Hindus, 13,687 Musalmans and 1,015 others, mainly Jains, Christians and Aryas. The population has remained stationary during the last thirty years, as in 1872 the total was 66,145 persons. The principal town of the pargana are the municipalities of Ghaziabad and Shahdara. Besides these there are two small towns of Loni and Farrukhnagar and the large village of Mandaula, all of which are separately mentioned. None of the other villages are of any great size or deserve particular mention.

The pargana is well supplied with means of communication, possessing no less than three railways, which unite at Gháziabad. The chief is the East Indian line from Dehli to Calcutta, which is joined by the North-Western Railway from Saháranpur to Gháziabad and the branch line of the Oudh and Rohilkhand Railway from Moradabad. Parallel to the first-named runs the Grand Trunk Road from which the metalled road from Dehli to Meerut takes off close to the east bank of the Hindan, while a short distance north of Gháziabad begins a second branch metalled road leading to Hapur and Garhmuktesar. From Shahdara an unmetalled road runs north to Loni and Baghpat and from Loni a similar road leads to Gháziabad joining the Grand Trunk Road at Jagaula.

Besides the District Board bungalow at Gháziabad, there are canal bungalows at Sarauli and Silampur. There are post-offices at Gháziabad, Shahdara and Loni; village schools are established at Shahdara, Loni, Ganauli and Mandaula.

LUMB, *Pargana* CHAPRAULI, *Tahsíl* BAGHPAT.

A very large, but otherwise quite unimportant village, lying, in latitude 29° 16′ north and longitude 77° 14′ east, in the north of the pargana on the road from Tanda to Kirthal and adjoining the latter village, which lies to the south. It contains a population of 4,297 persons, the great majority of whom are Jats, to whom it belongs. Besides these, there are several Jain Saraugis in the place. The village is irrigated by the Kandhla and Nala tributaries of the Jumna canal. Lumb is merely one of the large Jat villages that are characteristic of the north-west of the district. Its area is enormous, the distance from the main site of Kakripur on the east to that of Tugana on the west being over five miles.

MALEHRA, *Pargana and Tahsīl* SARDHANA.

A village on the edge of the high ground overlooking the left bank of the Hindan river, on the road from Sardhana to Shamli in Muzaffarnagar, which here crosses the river by a ferry called Nagwa. Through the southern portion of the village runs a second road leading from Meerut to Shamli, and close to the latter in the hamlet of Sarauli there is a pillar of the great Trigonometrical Survey standing, in latitude 29° 10′ north and longitude 77° 32′ east, at an elevation of 819 feet above the level of the sea. Malehra lies at a distance of seven miles from Sardhana and adjoining it on the east is the large village of Chhur. The population in 1901 numbered 3,334 persons, of whom 2,139 were Hindus, 663 Musalmans and 533 Jains. Rajputs form the bulk of the Hindu population.

MANDAULA, *Pargana* LONI, *Tahsīl* GHAZIABAD.

A considerable village in the north of the pargana on the unmetalled road from Shahdara and Loni to Baghpat, situated in latitude 28° 49′ north and longitude 77° 17′ east, at a distance of five miles north of Loni and four miles south of Khekra. It is said to have been founded by one Man Dat Rikhi, and now belongs to Hindu Tagas, who own a considerable quantity of land in the neighbourhood. The population at the last census of 1901 numbered 2,032 persons, of whom 187 were Musalmans. There is a small market here held weekly and a village school. To the west of the village the land slopes down to the Jumna khádir and there are large areas of barren waste.

MAU, *Pargana and Tahsīl* MEERUT.

Mau, or Mau Khas as it is more generally known, is a village on the south side of the metalled road from Meerut to Garhmuktesar, at a distance of eight miles from Meerut. It contains a third-class police-station and post-office, but is otherwise of no importance. The population at the last census numbered 1,015 persons, of whom 329 were Musalmans, chiefly Julahas. The village lies in latitude 28° 54′ north and longitude 77° 50′ east. Close to the village on the east flows the stream known as the Chhoiya.

MAWANA, *Pargana* HASTINAPUR, *Tahsíl* GHAZIABAD.

Mawana Kalan, the headquarters of the tahsíl, so called to distinguish it from Mawana Khurd, a village lying four miles to the west, is situated in latitude 29° 6′ north and longitude 77° 56′ east, near the right bank of the Fatehgarh branch of the Ganges canal, at the point of junction of four unmetalled roads leading to Meerut, Kithor, Bahsuma and Phalauda, at a distance of 17 miles from Meerut. It is essentially an agricultural place and most of the inhabitants are employed in cultivating the extensive lands belonging to the town, which cover an area of over 4,500 acres. The houses are nearly all built of mud; the only exceptions are a few shops in the bazár which runs from north to south in a narrow winding course. The main road is metalled and has masonry drains on each side. The market days are Thursdays and Saturdays. The tahsíli buildings and the post-office are situated in a walled enclosure outside the town to the north, and the police-station is in the north-western part of the town near the sweepers' quarters. There is also a sarai and four lower primary schools for boys, attended by 119 pupils and one girls' school attended by 25, all of which are aided by the municipality. On the Bahsuma road there is a large brick-built tank, constructed by one Keshab Das of Jansath which was repaired some years ago by a mahajan of Meerut. On the banks of the ruined Indi tank is a fine old temple built some 300 years ago. In the neighbourhood of the town there are several excavations full of water which becomes stagnant during the hot weather. The water-level has risen considerably since the opening of the canal and the place is feverish after the rains. The population at the last census numbered 9,207 persons, of whom 4,760 were males and 4,447 females. Classified according to religions there were 3,925 Hindus, 4,924 Musalmans, 107 Christians and 251 Aryas and Sikhs. The Musalmans are chiefly Chauhans, Ghosis and Gaddis.

Mawana is an old town and was, it is said, originally called Mumana, a name traditionally derived from one Mana, a huntsman and a reputed servant of the Kauravas. The original site of the village is on a neighbouring hill, and it was removed to

its present position owing to the breaking out of fires which the inhabitants attributed to supernatural agencies.

The town was formerly administered under Act XX of 1856, but in 1886 it was raised to the status of a municipality, at present managed by a board of nine members, of whom six are elected. There are two wards in the town, each of which returns three native members. The total income in 1902, inclusive of a balance of Rs. 690 from the preceding year, was Rs. 5,043. The chief item is the tax on circumstances and property, which amounted to Rs. 2,962. The only other heads of any importance were the fees and revenues from markets and slaughter-houses and the receipts from the sale of manure. The expenditure for the same year amounted in all to Rs. 4,045. The chief head was conservancy, Rs. 1,128; while Rs. 987 were devoted to the up-keep of the police, Rs. 625 to the cost of administration and Rs. 450 to charitable grants. The incidence of taxation falls at Re. 0-5-0 per head of population. Fuller details as to the income and expenditure of the municipality will be found in the appendix to this volume.*

MAWANA *Tahsíl.*

This, the north-eastern sub-division of the district, comprises the two Gangetic parganas of Hastinapur and Kithor, lying between Hapur tahsíl on the south and the Muzaffarnagar district on the north, while to the west it is bounded by the Meerut pargana and tahsíl. It is administered as a sub-division of the district in the charge of a full-powered officer on the district staff, assisted by the tahsildar, whose headquarters are at Mawana. For the purposes of civil administration it forms part of the Meerut munsifi. There are police-stations at Mawana, Kithor, Bahsuma Parichhatgarh and Khanpur. Post-offices are established at each of these places and also at Phalauda. The chief town of the tahsíl is the municipality of Mawana, while Bahsuma, Parichhatgarh and Phalauda are Act XX towns. Besides these there are several large villages, such as Kithor, Sháhjahánpur, Chandlawad, Aghwanpur and Niloha, which are separately mentioned. The tahsíl possesses but one metalled road leading from Meerut

* Appendix, Table XVI.

Garhmuktesar, which passes through Kithor and Sháhjahánpur in the extreme south. Unmetalled roads lead from Meerut to Parichhatgarh and Khanpur on the Ganges, to Mawana, Bahsuma and Bijnor, and to Phalauda. From Kithor an unmetalled road goes to Parichhatgarh, Mawana and Phalauda. Parallel to the last-mentioned road runs the Anúpshahr branch of the Ganges canal with bungalows at Dhakauli, Firozpur and Sakhoti in pargana Hastinapur, and at Parichhatgarh, Raidhana, Sháhjahánpur, Sháhzadpur, Bhatipura and Asafabad in pargana Kithor. Besides these there is a District Board bungalow at Kithor.

The tahsíl had in 1901 the total population of 200,399 persons, of whom 105,481 were males and 94,918 females. Classified according to religions, there were 148,444 Hindus, 49,445 Musalmans, 1,635 Christians, 821 Aryas and 54 Jains. Among the Hindus Chamars very largely predominate, numbering 38,915. Next to them come Brahmans, 18,251; Jats, 15,243; Gujars, 10,407; Bhangis, 6,285 and Tagas, 6,024. Rajputs are very scarce in this tahsíl, numbering 3,334, of whom more than half are Chauhans. Of the Musalmans the most numerous are Julahas, closely followed by Sheikhs and Qassabs. Next to them come converted Rajputs, who largely outnumber their Hindu brethren, amounting in all to 5,308 persons. Among them we find representatives of many clans, no one largely predominating; the chief are Panwars, Gahlots, Solankhis, Bargujars and Bhale Sultans. Next to the Rajputs come Pathans, who are chiefly of the Yusufzai subdivision.

As will be seen from the above figures, the tahsíl is wholly agricultural in character and the comparatively small number of Banias shows that there is but little trade. Possessing but one metalled road and no railway, the tahsíl is devoid of anything approaching a commercial centre. The chief industrial occupation is that of cotton-weaving, followed by the grain trade, which is, however, of no great importance. The ordinary village occupations also are less strongly represented here than elsewere in the district.

MEERUT CITY, *Pargana and Tahsíl* MEERUT.

The chief city of the district and division is situated in latitude 29° 1′ north and longitude 77° 43′ east, at an elevation

of 734·46 feet above the level of the sea, as recorded on the stone bench-mark of the Great Trigonometrical Survey imbedded in the north-west corner of the churchyard. Under the name Meerut are included the bazárs of the cantonments as well as the city and its suburbs. The city proper lies to the south of the cantonments and to the east of the Meerut city station of the North-Western Railway. The city was originally surrounded by a wall and a ditch pierced by nine gates, of which eight are of some antiquity and one is comparatively new. They are the Dehli, Chamar, Lihsari, Shorab, Shah Pir, Burhana, Khairnagar, Kamboh and the Baghpat gate of recent origin. The Chamar gate is situated in the ward of that name, while the Lihsari gate derives its name from the village of Lihsari which lies to the south of the town. The Shah Pir gate stands close to the maqbara of Shah Pir, a fine structure of red sandstone erected in 1628 A.D. by Nur Jahan, the wife of Jahangir, in memory of a faqir of that name. The Khairnagar gate was built by Nawab Khairandesh Khan, and the Kamboh gate by Abu Muhammad Khan, Kamboh. There are 38 muhallas in the city, the names of which for the most part explain their position or the caste of the inhabitants, or are taken from some more remarkable person living there or from some noted place within them. Thus we have the muhallas of the Thatheras, Jats, Chhipis, Topchis or gunners, Mahajans, Qanúngos, Swamis, Kamangars, Sabungars, Bhats and the muhalla Khishtpazan or brick-makers' quarter, all of which denote a caste or occupation; the muhallas of Shah Nathan, Karam Ali, Baba Khaki, Sarai Zinat (called after Begam Zinat of Lucknow), Shah Pir, Mashai Khan and Smithganj (from the Collector of that name, by whom it was built in 1825), all of which preserve the name of some notable inhabitant; and the Biruchah, Chah Godha Bhat, Chah Miumiran, and the Khari Kuan muhallas, which are named after celebrated wells within them. The oldest muhalla of the town is, as its name implies, the Kohna Bazár. There are nine other markets in the town known as the Anta Ram, Pahra, Guzari, Lala and Mirza Bazárs, Smithganj already mentioned, and Wylieganj. The largest bazár is Smithganj, which contains in itself a muhalla, bazár and sarai. There are five other sarais in the town, three of which are inside the walls and two outside.

Amongst the remains of former times in and around Meerut the Suraj Kund, commonly called by Europeans the "Monkey Tank," is deserving of notice. It was constructed in 1714 by Jawahir Mal, a wealthy merchant of Lawar. It was intended to keep it full of water from the Abu Nala, but as this supply was insufficient,the municipal board have arranged to fill it with water from the Ganges canal. On its banks there are numerous small temples, dharamsalas and sati pillars, but none of these are of any note. The Baleshwar Nath temple is the oldest in the district and dates from the Musalman invasion. The largest temple in the town is the Manohar Nath temple, which is said to have been built in the reign of Shahjahan. Another old temple is that of Maheshwar, which, according to the popular tradition, was constructed by some of the direct descendants of the Pandavas. The tank known as the Talab Matawala was built in 1714 by Lala Dayal Das, a Kayasth merchant; it has now silted up and only the walls remain. The dargah of Shah Pir has already been mentioned. A religious fair takes place here every year in the month of Ramzan, and the shrine is supported from the proceeds of the revenue-free village of Bhagwanpur. The Jami Masjid appears to occupy the position of a former Buddhist temple, the remains of which were discovered in 1875. It is said to have been built in 410 Hijri by Hasan Mahdi, the Wazir of Mahmud of Gházni, and was repaired by Humayun. The dargah of Makhdum Shah Wilayat stands near the Collector's office and is said to have been built by Shahab-ud-din Ghori. The maqbara of Abu Muhammad Khan, Kamboh, the founder of the Kamboh gate, was built by members of his family in 1688 A.D. There is another maqbara of the same family containing the remains of Abu Yar Muhammad Khan, erected in 1039 Hijri, as recorded in an Arabic and Persian inscription on the northern arch of the doorway. The Karbala was built about 160 A.D. There are two large Imambaras, one near the Kamboh gate and another in the Zahidi muhalla, a large mosque built by Nawab Khairandesh Khan in the Sarai-ganj; and besides these there are 66 other mosques and 60 temples, none of which deserve any particular notice. The maqbara of Salar Masaud, however, should not be passed over, as

it is one of the oldest buildings in the town, having been erected by Qutb-ud-din Aibak in 1194 A.D.

This same Qutb-ud-din destroyed the famous temple of Nauchandi Debi, which stood about a mile to the east of the city and erected on its site a dargah which stands between the Hapur and Garhmuktesar road and forms the scene of a great fair, which is held annually at the end of March or beginning of April. This fair has its origin in a religious ceremony in honour of the new moon, which lasted for two days only. In 1880 this period was extended to seven days, but it was not until 1883 that it began to assume an aspect of more general utility. In that year the late Mr. F. N. Wright was the Collector of the district, and by his efforts the Government horse-show was added and a committee set on foot for the encouragement of manufactures and agriculture. From that date the fair has grown in importance and popularity. It is managed by a general committee presided over by the Magistrate and Collector, and consists of two parts, the exhibition and the shops of private traders. In the exhibition there are four departments, each managed by a sub-committee, and prizes are adjudged in each class. Department A is the horse-show, which consists of nine classes. Prizes amounting to Rs. 1,600 are given by Government and other prizes to the value of Rs. 900 are awarded from the fair fund. The average number of horses brought to the fair is about 1,700 or 1,800. Department B comprises cattle, agricultural products and implements, and ploughing matches. Department C is a flower and vegetable show; and Department D consists of manufactures. Special prizes for the encouragement of various kinds of industries are also awarded for penmanship, drawing and poultry. Horse racing and sports for the boys of all schools of the district are also held in connection with the fair. The *raises* of the district usually occupy tents within the fair grounds, and the fair is largely visited by persons of all ranks, including shopkeepers and exhibitors from all parts of India.

Another small fair is held at the Suraj Kund on the second day of the first half of Chait after the Holi, and is known as the Tilendi Mela.

Though there is a considerable trade in Meerut, it is not essentially a trading centre. The institution of a bonded-

warehouse in 1887, known as Kaisarganj, has developed the trade in grain, sweet stuffs, ghí and other articles to a considerable extent. It lies at a distance of about a mile from the city station with which it is connected by a branch line, the construction of which was due to the energies of Mr. F. N. Wright. The enormous growth of the trade which has passed through Kaisarganj during the last five years is an ample proof of the wisdom of the step then taken.* Mention should also be made of the North-West Soap Company, Limited, of Meerut and Calcutta. This was originally started at Meerut in 1879 as a private enterprise, and became a limited liability company in the next year. It has greatly flourished and now has a working capital of over nine lakhs, and extensive premises both in Meerut and Calcutta, employing about 500 hands and turning out over 15 tons of soap daily. There is a large export trade not only in soap, but in stearine candles, glycerine, tin canisters and cardboard boxes. The company have gained many prize medals, notably at Calcutta in 1883, and at the Indian and Colonial Exhibition in 1886.

The cantonments cover a large area to the north of the city. The normal garrison comprises two batteries of horse artillery and two batteries of field artillery, one regiment of European cavalry, one regiment of European infantry, one regiment of native cavalry and one regiment of native infantry. It is the headquarters of the Meerut military district, which comprises the garrisons at Meerut, Roorkee, Landhaur, Chakrata and Dehli. The principal building is the church, begun in 1819 and completed in 1821. It is built of brick and stucco, with a handsome spire and length of 150 feet and a breadth of 84 feet. The expense of the building was partly defrayed from subscription and partly by Government grant. One of the subscribers was the Begam Somru, who also built a Roman Catholic church and a mission chapel, of which the latter was completed in 1869. In connection with it is the Meerut Asylum, supported by the European residents for the relief of distressed Europeans and Christians. The cantonments are traversed from east to west by the Mall, which is considered one of the finest roads in India. Close to it stands the Wheler Club which was opened in 1863.

* *Vide supra*, Chapter II, p. 61.

Between the city and cantonments lie the civil lines which contain the offices of the Commissioner, Judge and Magistrate, as well as the bungalows of the civil European population. To the south-east stands the old central jail which was closed in 1866. The site has been given to the municipal board which proposes to form it into a park, to be called the Victoria Park. The district jail was opened in 1886 and lies about two miles from the city and a mile from Abdullapur on the east; it was built entirely by convict labour.

The other public buildings of Meerut comprise the tahsíl, postal head office in cantonments, and several branch offices, such as the two railway-station offices and Kaisarganj, telegraph offices in the city, at the Kutcherry, and three in cantonments, the Kotwali or city police-station, two police-stations in cantonments, known as the Sadar Bazár and Infantry Bazár stations, a dâk bungalow, hospital and the Town Hall. The last-mentioned building, which also contains the Lyall Library, named after Sir Alfred Lyall, a former Lieutenant Governor of these provinces, owes its origin to the exertions of Mr. F. N. Wright. The first stone was laid in 1884 by H. R. H. the Duke of Connaught, who was at that time in command of the Meerut district, and the building was completed in 1886. The central room known as the Connaught Hall is used for municipal and other public meetings, and contains a portrait of Her Majesty the late Queen Empress purchased by the members of the Board, and a portrait of H. R. H. the Duke of Connaught, presented to the municipality by Her Majesty the late Queen Empress. Adjoining the main hall there is a reading-room in which hang portraits of Messrs. Wright, Whiteway and other founders of the library. The rooms on either side of the building consist of the municipal office, the court-rooms of the honorary magistrates, and committee rooms. The hall stands in an ornamental garden near the Kamboh gate of the city.

The Meerut College was founded in 1892 by subscriptions from the leading gentlemen of the subdivision, at a cost of Rs. 2,00,000. This is supported by a grant-in-aid from Government of Rs. 8,000 a year. The intermediate class was opened in July 1892, and with the upper section of the zila school

formed the nucleus of the college. The B. A. classes were opened in 1894. The institution is maintained by the income from fees and donations as well as from the Government grant.

The Church Mission High School at Meerut is a very old institution and had in 1901 215 students on its rolls. Besides these there is the Dayananda anglo-vernacular school founded in 1887, which has been raised to the status of a high school. In addition to these there is a tahsíli middle school, a municipal middle school with 200 pupils on its roll and a cantonment anglo-vernacular school with over 200 students. The other schools comprise a lower primary school supported by the municipality, the Vaishya orphanage school, which receives a grant-in-aid, and two lower primary schools for girls, both aided by the municipality, one of which is known as the Zanana Mission school and the other as the Stri Siksha Pathshala.

The water-supply of the town is provided from the water-works, which were commenced in 1894 and completed in 1896, at a cost of Rs. 7,50,000. The main works are about nine miles from Meerut on the Ganges canal at Bhola, where the pumping station and filter beds are situated. The engines from which the water is forced through the pipes to the water towers at Meerut are worked by turbines turned by the water at the Bhola falls. It is estimated that a total annual supply of 438 million gallons is possible, which works out at the rate of about ten gallons daily per head of the population of the city and cantonments. The actual consumption in 1901 was 173,553,967 gallons. When the works were constructed the Government of India guaranteed a minimum consumption of 120 million gallons for cantonments, and undertook to pay for this quantity or the difference between it and the actual cantonment consumption at the rate of four annas per thousand gallons. In 1899 pipes were extended to cantonments and an extra storage tank was completed. The initial cost was met by a loan from Government to the municipal board at four per cent. repayable in sixty half-yearly instalments.

Prior to the construction of the water-works the drinking supply was obtained from wells, most of which were constructed during the Mahratta rule. The water as a rule is good, and is found at a depth of eight to fifteen feet below the surface. The

drainage of the city is good, and all the channels have been lined with masonry and the drainage system realigned of late years.

The municipality of Meerut is managed by a board consisting of 21 members, including the Collector as Chairman and the Vice-Chairman, Nawab Asad-ullah Khan, who has rendered excellent services to the municipality for many years. The number of elected members is fifteen, three being returned from each of the five wards. The total income of the municipality in 1902 amounted to Rs. 2,62,955, including a balance of Rs. 26,872 from the preceding year. It is chiefly derived from an octroi tax on imports, which yielded Rs. 1,84,717, with an incidence of Re. 1-2-0 per head of population after deducting refunds. The other main heads of income were the sale-proceeds of sweepings, Rs. 14,665; the bonded-warehouse in Kaisarganj, Rs. 13,635; rents on nazúl and municipal lands and bazár dues, Rs. 5,730; school fees, Rs. 3,416 and license fees of hackney carriages, Rs. 3,444. The total expenditure for the same year amounted to Rs. 2,54,615, of which Rs. 25,180 were devoted to the cost of collections and refunds; Rs. 42,443 to public works, consisting chiefly of repairs to metalled roads and the maintenance of the water-works; Rs. 24,415 to conservancy; Rs. 10,542 to the up-keep of the municipal police and Rs. 7,877 to the maintenance of the bonded-warehouse. For the purposes of octroi the city and cantonments are linked together. The octroi is administered entirely by the municipal board, and the income is divided between the board and the cantonment committee on a scale fixed by the two bodies. In consequence of this the sum of Rs. 57,470 were contributed by the municipality to the cantonment fund. In the same year two instalments were paid on account of the loan for the water-works, amounting to Rs. 43,142. The amount expended on education was Rs. 8,520 exclusive of the grant made to the District Board for schools and colleges.*

Besides the city railway station already mentioned there is another station in cantonments adjoining the small town of Kankarkhera. Good metalled roads extend from Meerut in every direction, leading to Gháziabad and Dehli on the south-west, to Baghpat on the west, Sardhana on the north-

* For further details, *vide* Appendix, Table XV.

west, Saharanpur on the north following the line of railway, Garhmuktesar on the south-east and Hapur on the south. Of the remaining roads that radiate from the city the chief is that leading to Bahsuma and Bijnor; which is metalled as far as Saini, a distance of seven miles, while unmetalled roads lead to Parichhatgarh and Khanpur on the east, to Binauli and Baraut on the north-west and to Sardhana by a more direct route than that taken by the metalled line. The distance from Meerut to Dehli by Gháziabad is 45 miles, while the route *viâ* Baghpat is 53 miles. Hapur lies at a distance of 20 miles, Muzaffarnagar 33 miles, and Garhmuktesar 28 miles. There is no regular encamping-ground at Meerut, but there is ample accommodation for any number of troops in cantonments.

The population of Meerut municipality at the census of 1901 numbered 78,740 persons, of whom 42,595 were males and 36,145 females. The population of the cantonments numbered 39,389 persons, of whom 22,973 were males and 16,416 females, giving a total combined population of 118,129 persons. The population of cantonments is necessarily fluctuating and its nature varies according to that of the regiments stationed there for the time being. In 1901 there were 22,368 Hindus, 13,265 Musalmans and 3,756 of other religions, most of whom were Christians. Of the population within the municipal limits there were 39,639 Hindus, 37,052 Musalmans, 731 Jains, 666 Aryas, 624 Christians and 28 Sikhs. The chief Hindu castes in point of numbers were Banias 5,837, being mainly of the Agarwal subdivision, Chamars 4,715, Brahmans 3,835, Koeris 3,045, Malis 3,260, Gadariyas 2,035 and Kahars 1,436. Of the Musalmans the most numerous are the Sheikhs, 6,082, who are mainly of the Siddiqi and Qurreshi subdivisions; Pathans, 3,416, mainly of the Yusufzai subdivision; Julahas, 3,171; Saiyids, 2,965; converted Rajputs, 1,936; Qassabs, 1,981; and Darzis, 1,716. The chief occupations of the inhabitants are general labour, represented by 2,590 persons; agriculture, 1,513; indoor service, 1,566; and field labour, 602. Cart-owners and drivers numbered 1,455, grain-dealers, 880; vegetable and fruit-sellers, 517; shopkeepers and servants, 407; potters, 559; pedlars, &c., 483, and brokers and agents, 351. Among the special crafts there were 944 cotton-

weavers, 762 shoemakers and workers in leather, 582 bakers, 517 manufacturers and sellers of sweetmeats, 500 carpenters, 351 masons and builders and 317 sellers of pottery. It will appear from these figures that there are no largely represented occupations other than those which are common to all large towns. Meerut is famous for no special industry and cannot be described as a manufacturing town. The only articles for which the place has any celebrity are silk-embroidered caps similar to those used in Muttra. The silk of these is not woven here, but is principally imported from Dehli.

The name Meerut, properly spelled Merath or Mirath, is variously derived. According to one account it was originally known as Mahir Rashtra, the name given to it by one Mahi, a distinguished architect, who built a palace at Indraprastha or Dehli, in exchange for which he received the land on which Meerut now stands from the king Yudhishthira. This Mahi is said to have built the Andar Kot, a high brick fortress, the remains of which are still traceable. The Jats, on the other hand, allege that Meerut was founded by a colony of their caste belonging to the Maharashtra Gotra. Others say that Meerut received its name from Mahipal, king of Dehli. Still another derivation is to be found in the tradition that the place was in very ancient times called Mahidant-ka-Khera. None of these provide a very satisfactory explanation for the name; but that Meerut was inhabited in very ancient times is evident from the fact that the Asoka pillar, which now stands on the ridge at Dehli, was erected here by the great Buddhist emperor in the third century before Christ. This fact is attested by an inscription on the pillar, which states that the monument was removed from Meerut to Dehli by Firoz Shah in 1206 A.D. The existence of this pillar and the discovery of Buddhist remains within the city leave little room for doubt that Meerut was an important centre of Buddhism in the time of Asoka, although no mention of the place is made by the Chinese travellers, which possibly points to its decay at an early date. At a later period Meerut was captured by Saiyid Salar Masaud in his invasion of Hindostan. In the eleventh century Hardatta, the Dor ruler of Baran or Bulandshahr, Koil and

Meerut, built a fort which, according to the Taj-ul-Maasir of Hasan Nizami, was one "of the celebrated forts of the country of Hindostan, for the strength of its foundation and superstructure and its ditch which was as broad as the ocean and fathomless." This fort was captured by Qutb-ud-din in 1191 A.D. and all the Hindu temples were converted into mosques. In 1327 A.D. the Mughal chieftain, Tarmsharin Khan, made an unsuccessful attack on the city, but it was completely sacked and destroyed by Tímúr in 1399 A.D. Several centuries later, in 1788, the fort was taken by the Mahrattas after a severe struggle with the Musalman garrison under Ghulam Qadir. The place was of sufficient importance in Akbar's day to be a mint for copper coins. Mr. Guthrie, writing in 1805, says: "Meerut is a ruinous, depopulated town and a place of no trade. The average net market dues for four years amount to only Rs. 2,535." It soon, however, began to recover. The cantonment was first established in 1806, and in 1808 the cavalry and infantry barracks were commenced by Major Penson. The remaining history of the city will be found in the account of the district.

MEERUT *Pargana and Tahsíl.*

This, the central subdivision of the district, extends with an average breadth of about 23 miles from the Hindan river on the west, which separates it from the parganas of Barnawa and Baghpat, to the Hastinapur and Kithor parganas of the Mawana tahsíl on the east. To the north lie the Sardhana pargana and the Muzaffarnagar district, while to the south the boundary is formed by Jalalabad and Sarawa. It is of irregular shape, the main body of the pargana being almost square with a large projection running northwards between Sardhana and Hastinapur. It has a total area of 233,031 acres or 364 square miles.

Along the Hindan river there is a narrow khádir which has considerably deteriorated of late years and has now gone largely out of cultivation. Above this khádir there is the usual line of ravines, but they are generally unimportant, except in a few villages, being in most cases represented by a narrow strip of broken land. Beyond this extends the upland plain which consists of a uniform tract of first class soil that covers more than

half the pargana. The eastern portion is more varied in appearance. It is drained by the Kali Nadi and its affluents, the chief of which are the Abu and the western Chhoiya, while the eastern Chhoiya flows in an irregular course close to the Mawana boundary. In the extreme north of the pargana the Kali Nadi flows in a poor sandy tract, but further south its valley is characterized by a small stretch of good clay soil at the bottom with gentle sandy slopes on either side. Further south, again, there is another strip of sandy soil which enters the pargana from Sardhana on the north-west and stretches right across the pargana to the Kithor border; in this tract are situated the poorest villages of the pargana. Between this *bhur* ridge on the east and the level plain on the west there is a considerable area of low-lying soil which begins immediately to the south of Meerut and extends as far as the Hapur tahsíl. The cultivation is continually interrupted by patches of *reh*-infected soil, while even the better soil is constantly liable to saturation. Attempts have been made to improve the drainage in this portion of the pargana by several cuts which discharge their waters into the various streams, but the attempt has only been partly successful.

Of the total area 175,532 acres or 75 per cent. were cultivated in 1308 fasli, showing an increase of over 11,000 acres since the recent settlement. The barren area amounts to as much as 30,628 acres, most of which consists of absolutely unculturable land, while the remainder is either covered with water or occupied by village sites. The pargana possesses ample means of irrigation, for the main Ganges canal runs through the western half and its distributaries supply the whole of the pargana between the Hindan and Kali Nadi. East of the latter the villages depend entirely on wells, most of which are of masonry. Formerly the Kali Nadi was largely used for this purpose, but is now no longer available owing to the deepening and strengthening of the channels by the Canal Department—a measure which has fully compensated for the loss of irrigation by the improvement of the waterlogged khádir. The actual irrigated area in 1308 fasli amounted to 57,341 acres, of which 37,699 acres were watered from the canal, 18,871 acres from wells and 771 acres from other sources. At the time of settlement the total irrigated

area was recorded as 110,735 acres; but it must be remembered that these figures do not represent the actual irrigated area, inasmuch as under ordinary circumstances the land is watered at least twice and generally three times or more.

The rabi is the principal harvest, exceeding the kharíf by about nine per cent., while 21 per cent. bears a double crop. The chief staples are wheat, gram and peas in the rabi, while in the kharíf the largest areas are occupied by juar and sugarcane, the remainder consisting chiefly of maize, cotton, rice and indigo. The area under sugarcane has not increased very greatly of late years, but still is very large, amounting to over 12 per cent.; the cultivation of this crop received a great impetus with the construction of the Ganges canal.

The revenue of the pargana now stands at Rs. 5,62,836, being at the rate of Rs. 3-0-5 per acre of cultivation. At the settlement of 1840 by Sir H. M. Elliot the demand was fixed at Rs. 3,34,557, rising to Rs. 4,08,905 at Mr. Porter's settlement of 1866. The present revenue stands in the proportion of 48·31 per cent. to the net assets, but varies slightly in the different parts of the pargana. The rents are low, although they have risen very greatly of late years. There is an exceptional amount of occupancy land, the common rates for which are Rs. 6 and Rs. 3 per acre of irrigated and unirrigated land respectively. The rates paid by tenants-at-will range from Rs. 12 to Rs. 9-9-0 per acre of the better class of irrigated land.

The 301 villages of the pargana are divided into 650 mahals, of which 246 are zamindari, 220 pattidari and 361 bhaiyachara. The large number of zamindari mahals is due to the preference given by the Banias of Meerut to the headquarters tahsíl in purchasing land. These Banias are chiefly Agarwalas, the most important of whom are the family known as the Pattharwalas, connected with whom are the old family of Qanungos; both own a large area. Next to them come the Chaurasya Brahmans of Meerut, the Rani of Landhaura, Hafiz Abdul Karim of Meerut, and Mehndi Ali Khan of Jansath. Of the cultivating proprietors the most important are the Játs who are especially in the western half of the pargana and hold the best villages. In the extreme north are found the Gujars, whose headquarters are

at Dadri, while further south Chauhans predominate. In the north-west there are two large colonies of Tagas who hold a good many villages. Rajputs are not very numerous, but possess two very fine villages in Siwal and Kurali. Besides these there are many large communities of Musalmans, most of whom prefer to sublet their land instead of cultivating it. With the exception of the Saiyids of Dhaulri, who are mostly found in the south, the Musalmans chiefly keep to the eastern half, the most important proprietors being the Mirs of Lawar, the Sheikhs of Chauli and the Saiyids of Abdullapur.

The tenantry is composed of very many castes, the chief are the Jats, followed by Gujars, Brahmans, Rajputs and Chamars. Next to them come Malis, Sanis, Barhais, Lohars, Musalmans and Ahirs, but these do not in any way exhaust the list.

The pargana formerly contained thirteen tappas, Gaija, Siwal, Puthi, Pabli, Patta, Haveli, Rori, Lawar, Machara, Sasaoli-Mau, Satta, Rasulpur-Rohta and Sikhera, but these distinctions have now been entirely lost. It now forms a tahsíl by itself and is administered as a subdivision of the district in the charge of a full-powered officer of the district staff. The headquarters of the tahsíldár are at Meerut, while the civil work is in the charge of the Munsif of Meerut, who is subordinate to the District Judge. For the purpose of police administration there are stations at Jani, Daurala, Mau Khas, Kankar Khera, Baksar Khera, besides the Kotwali or city police-station and the two stations in cantonments.

Means of communication are excellent. Besides the North-Western Railway, which passes through the tahsíl from north to south with stations at Daurala, which is generally known as Sardhana, Meerut cantonments, Meerut city and Mohiuddinpur, metalled roads radiate from the headquarters in every direction. The chief of these follows the line of railway running from Dehli to Gházíabad, thence to Meerut, and continuing northwards to Sahâranpur. South from Meerut runs the road to Hapur and Bulandshahr, while other metalled roads run south-east to Garhmuktesar, west to Baghpat, and north-west to Sardhana. The road from Meerut to Bahsuma and Bijnaur is metalled for about eight miles as far as Saini, the remainder

being of the second class. Unmetalled roads run to Baraut, to Shamli in Muzaffarnagar, to Phalauda, to Parichhatgarh and to Bhola on the Ganges canal. Besides all these roads the city and cantonments are well supplied with broad metalled roads in excellent order.

Besides the city of Meerut the tahsíl contains several places with large populations which, however, with the possible exception of Lawar, should rather be described as large villages than as towns. Among these there are Dhaulri, Rasulpur Rohta, Daurala, Abdullapur, Inchauli, Siwal and Kankar Khera, all of which are separately described. The total population of the pargana and tahsíl, including that of the municipality and cantonments, amounted at the last census to 342,143 persons, of whom 233,210 were Hindus, 101,118 Musalmans, 1,582 Jains, 329 Sikhs, 4,691 Christians and 1,218 Aryas.

The total population of the rural area, exclusive of the municipality and cantonments, amounted to 224,014 persons, of whom 171,203 were Hindus, 50,801 Musálmans and 2,010 of other religions, chiefly Jains, Aryas and Sikhs. Of the Hindus the most numerous castes were Chamars, 41,756; Jats, 38,470; Brahmans, 21,413 and Agarwals, 9,303. There are also large numbers of Rajputs, chiefly of the Chauhan, Gahlot, Parihar, Bargujar, Panwar and Jadon subdivisions. Besides these there are large numbers of Koeris, Kumhars, Malis, Khatiks, Gujars and Kahars. Ahirs numbered 3,475 and Tagas 3,623. Of the Musalmans the most numerous were the Sheikhs, 15,858; followed by Saiyids, 8,788; converted Rajputs, 8,468; Pathans, 7,356 (being mainly of the Yusufzai clan); Julahas, 9,880 and Qassabs, 5,474.

The tahsíl as apart from the town is mainly agricultural, the chief occupations being the articles of food and drink represented by 12,972 persons, cotton-weaving and similar industries, 7,071; shoe-making, 3,126; pottery, 2,162; iron-work, 2,155; wood-work and joinery, 2,269. Owing to the proximity of a large city a large number of persons are engaged in general labour.

Besides the post-offices at Meerut there are offices at Daurala, Inchauli, Jani, Lawar, Dhaulri and Maukhas. There is a District Board bungalow at Daurala and canal bungalows at Mataur, Bhola, Kaithgauri and Timkia. The schools in Meerut

municipality and cantonments have been separately mentioned; in addition to these there are sixteen Government village schools established in the larger villages, and eighteen aided indigenous schools in the tashíl.

MUNDALI, *Pargana* SARAWA, *Tahsíl* HAPUR.

This villages lies in latitude 28° 52′ north and longitude 77° 51′ east, on the northern boundary of the pargana, some five miles east of the road from Meerut to Hapur, eleven miles from the former and two miles south of Mau. It is said to have been founded by Malli Meo of Meerut, who called it Mallali, which has been corrupted into the present name. The zamindars are mainly Rajputs, both Hindu and Muhammadan. The village contains a school and a small bazár in which markets are held on Friday in every week. It contained in 1901 a population of 2,970 persons, of whom 1,227 were Musalmans. The Rajputs of Mundali are the only Rajput zamindars of the pargana. They also have a share in the adjoining village of Badhagirdharpur. Down the middle of the village from north-west to south-east runs a line of sandhills which forms as it were the water-parting of the valleys of the Kali Nadi and the eastern Chhoiya.

MURADNAGAR, *Pargana* JALALABAD, *Tahsíl* GHAZIABAD.

A small town in the centre of the tahsíl, situated in latitude 28° 47′ north and longitude 77° 31′ east, about a mile distant from the metalled road from Meerut to Dehli, and on the branch road leading to Baghpat, at a distance of a little more than 18 miles from Meerut. The present town comprises the two old villages of Muradnagar and Sarna, the latter being the western portion. The inhabitants of Sarna are exclusively Tagas, and in Muradnagar also they are found in great numbers. There is a station on the North-Western Railway known as Muradnagar, but lying nearly two miles to the south-east of the town on the other side of the metalled road. The place formerly was the headquarters of the tahsíl, but this was transferred to Ghaziabad in 1859. It was seized and held by the rebels during the mutiny,

when the tahsíl was temporarily removed to Mohiuddinpur; an account of these events will be found in Chapter V. It now contains a police-station, post-office, a canal bungalow, a cattle-pound and a school, which is located in a brick-built sarai, erected by the founder of the town, Mirza Muhammad Murad, Mughal, over 300 years ago, and now the property of Government. His mausoleum is still in existence and stands near the town. There is a bazár here, but it is of no great importance, most of the produce of the neighbourhood going to Dehli. There are no special manufactures, but a good deal of market gardening is carried on. Muradnagar contained in 1901 a population of 4,656 persons, of whom 2,696 were Musalmans, 1,710 Hindus and 160 of other religions, Christians, Jains and Aryas. The town is administered under Act XX of 1856, and in 1901, the income of the place amounted to Rs. 1,545, including a balance of Rs. 194 from the preceding year. There are 1,234 houses in the town, of which 726 were assessed, yielding Rs. 926, with an incidence of Re. 1-4-4 per assessed house and Re. 0-3-8 per head of population. The expenditure for the same year was Rs. 1,214. The police force consists of seven men of all grades, and the cost of its up-keep was Rs. 432. The other main heads of expenditure are conservancy, Rs. 300; and local improvements, Rs. 249.

NILOHA, *Pargana* HASTINAPUR, *Tahsíl* MAWANA.

A large village, in latitude 29° 8′ north and longitude 77° 52′ east, about a mile and a half north-west of Bhainsa on the Bijnor road from Meerut, at a distance of some four miles from Mawana and 13 miles from the district headquarters. The place was founded by a Jat named Nihal, who emigrated from the neighbouring village of Salarpur, where a *khera* now marks the site of the original settlement. A fair is held here every year in honour of Goga Pir in the month of Sawan, and a market is held weekly on Sundays. It had a population in 1901 of 3,388 persons, of whom 493 were Musalmans. Chamars and Jats form the bulk of the Hindu population. The greater part of the village belongs to the Landhaura estate and one-tenth to the Jats. There is an upper primary school here.

NIRPURA, *Pargana* BARNAWA, *Tahsíl* SARDHANA.

A very large village, lying, in latitude 29° 14′ north and longitude 77° 24′ east, at a distance of seven miles from Barnawa on the extreme northern boundary of the pargana and the district and forming part of the Chaugaon of Barnawa pargana. To the west lies Tikri and to the south Doghat and Daha, all of which it greatly resembles in appearance and characteristics. It had a population at the last census of 5,788 persons, of whom 3,989 were Hindus, 1,573 Musalmans and 426 Jains and Aryas. Of the Hindus the majority are Jats, who have held the village for many centuries on bhaiyachara tenure. Among the Musalmans there are a number of Julahas who carry on their own ancestral trade and have obtained for the place some celebrity on account of the blankets made here. A bazár is held weekly in the village and a fair, known as the Mela Chhari Khwaja Ajmer, takes place here every year. There is a post-office and a Government primary school in the village.

NIWARI, *Pargana* JALALABAD, *Tahsíl* GHAZIABAD.

A very large village on the left bank of the Ganges canal, at the point where it is crossed by the road leading from Begamabad to Baleni, at a distance of 14 miles from Meerut. It contains a population of 4,371 inhabitants, of whom 4,007 are Hindus, chiefly Tagas, to whom the village belongs. A market is held every week on Sundays and a village school is maintained here. There was formerly a police-station here; by the canal there is an inspection-bungalow. The village, which lies in latitude 28° 53′ north and longitude 77° 33′ east, covers a wide area, extending from Patla on the west to Sara on the east.

NIZAMPUR, *Pargana* GARHMUKTESAR, *Tahsíl* HAPUR.

A very small village, in latitude 28° 50′ north and longitude 78° 2′ east, on the metalled road from Meerut to Garhmuktesar, at a distance of 20 miles from the former. It is a purely insignificant place save for possessing a police outpost of the Kithor station. The population of the place was in 1901 only 176 persons, almost all of whom are Gujars. There is a canal inspection-bungalow here on the Kithor distributary of the Anupshahr canal.

PARICHHATGARH, *Pargana* KITHOR, *Tahsíl* MAWANA.

A small town, in latitude 28° 59′ north and longitude 77° 57′ east, on the unmetalled road from Mawana to Kithor, at the point where it is crossed by the road running from Meerut to Khanpur and Kamruddinnagar Ghat on the Ganges. It contained in 1901 a population of 6,278 persons, of whom 4,779 were Hindus, 1,252 Musalmans and 246 Aryas. Chamars, Tagas, Banias and Brahmans form the bulk of the population. The place has grown considerably of late years, for in 1865 the number of inhabitants was 4,894. The greater part of the site is well raised and drained, with a large excavation to the south, and others to the east and west. On the highest point in the centre of the town is a brick fort, which is of great antiquity. According to the tradition it was built by Parikshit, the grandson of Arjun Pandava, who was also the founder of the town. The fort remained untenanted until the rise of the Gujars in the eighteenth century, when Raja Nain Singh repaired and strengthened it and built a residence for his family close by. The fort, which is known as the Qila, a name which is locally applied to the town, was dismantled in 1857 and is now used as a police-station. The *chaupal* on one side of the Rája's house has been utilized as a school. The houses of the people are chiefly of mud and congregate around the fort. The quarter of the Banias lies to the west and that of the Chamars to the east. From the school a paved street runs to the south of the town, and another street turns off from this to the bazár on the west. This bazár has a prosperous appearance and contains several good shops. A considerable market is held here on Monday in every week. Near the Rajá's residence there is a large well known as the Newaldeo; it is of considerable local celebrity, being said to have been built in the time of the Pandavas, and its water is drunk by people from all parts as a cure for leprosy. A considerable amount of market gardening is carried on in the lands adjoining the town.

In the early days of British rule Parichhatgarh was the headquarters of the tahsíl, which has since been removed to Mawana. Close to the town runs the Fatehgarh branch of the Ganges canal and there is an inspection-bungalow here. Besides the police-station already mentioned, one Government and one

aided school, Parichhatgarh possesses a district post-office, a canal inspection-bungalow and a cattle-pound. It is administered under Act XX of 1856 and in 1901 supported a police force consisting of nine men of all grades. There are 1,643 houses in the town, of which 1,161 are assessed to taxation. The total income was 1,666, of which Rs. 809 were derived from the house-tax, which fell with an incidence of Re. 0-14-7 per assessed house and Re. 0-3-1 per head of population. The expenditure for the same year amounted to Rs. 1,455, of which Rs. 516 went to the up-keep of the police, Rs. 395 to local improvements, and Rs. 312 to conservancy.

PATLA, *Pargana* JALALABAD, *Tahsíl* GHAZIABAD.

A large village, about two miles distant from the western bank of the Ganges canal, opposite Niwari, with which it is connected by an unmetalled road, and 24 miles from Meerut. It contains a school and a bazár in which markets are held every Wednesday. The village belongs to Jats, who form the bulk of the inhabitants. The population at the last census numbered 4,105 persons, of whom 3,443 were Hindus, 450 Musalmans and 212 Aryas. There is a Government primary school here. The village lies in 28° 53′ north latitude and 77° 31′ east longitude.

PATPARGANJ, *Pargana* LONI, *Tahsíl* GHAZIABAD.

A small market in the south-west corner of the pargana, about a mile distant from the Jumna and 31 miles from Meerut. It stands in the village of Gharaunda Nimka, which in 1901 possessed a population of only 607 inhabitants, of whom 34 were Musalmans and six Jains. It is a decaying place, but was formerly administered under Act XX of 1856. It is now only of interest on account of the events which took place here in 1803. About three-quarters of a mile from the village is the spot, marked out by a surrounding ditch, where Lord Lake, on the 13th of September, won the battle of Dehli against the Mahrattas, commanded by the French adventurer, Bourquien. There is a monument on the spot erected in memory of Colonel Sanguine and others, who fell on that occasion. The old market and sarai

of Patparganj were once of some importance as being on the king's highway from Dehli to Agra. The road through the Jumna khádir is still to be traced, but much of it is impassable at all seasons of the year. Patparganj lies in latitude 28° 37′ north and longitude 77° 18′ east. The village is protected from inundation by the training works of the Agra canal. The cut from the Hindan runs to the south-east, entering the Jumna at the extreme south-western corner of the village.

PHALAUDA, *Pargana* HASTINAPUR, *Tahsíl* MAWANA.

A town lying, in latitude 29° 11′ north and longitude 77° 51′ east, at the junction of two unmetalled roads leading from Meerut and Mawana, at a distance of 17 miles from Meerut. It contained at the last census a population of 5,214 inhabitants, of whom 2,642 were males and 2,572 females. Classified according to religions there were 2,910 Hindus, 2,130 Musalmans and 183 others, mainly Jains. The town lands cover a considerable area and are fertile and well cultivated and possess numerous groves of mango trees. The town itself is a poor place, with narrow and dirty streets.

It is said to have been founded by a Tomar named Phalgu, and his descendants were in possession up to the time of the advent of the Musalmans. The story runs that one Mir Surkh, a native of Mazenderan, came with a body of freebooters and seized the place by stratagem. Having bribed a Brahman to explain the customs of the Rajputs, he transported his men in palanquins to Batnaur on the Ganges, where the Rajputs had assembled to bathe on the Puranmashi of Kartik. By this device he slew all the Tomars and seized Phalauda, incorporating the town in his tappa of Lawar, which consisted of 45 villages. Phalauda has been held by the Mirs ever since.

At Phalauda is the dargah of Qutb Shah, where a religious fair is held every year. Qutb Shah was the son of Daulat Khan, an Amil stationed under the Dehli Government at Phalauda, and being born during the fast month of Ramzan refused to be suckled. It was considered to be a sign that the boy would attain to great distinction, and on his growing up this was fulfilled by his becoming a faqir and a great miracle-worker.

The people of Nagla Katar, a neighbouring village, mostly Mirs, wished to destroy Qutb Shah's power, and for that purpose invited him to a feast, where a roasted cat was served up. Qutb Shah instantly detected the treachery and restored the cat to life and cursed the people of the village. The people were in consequence visited with sickness and the village went to ruin. For nearly two centuries nobody cultivated the village, nor in 1836 could the Settlement Officer (Mr. Elliot) induce anybody to undertake its cultivation. After that some Jats occupied it at a progressive revenue of Rs. 30. The village is now again in a high state of cultivation, and at the settlement of 1867 a land revenue of Rs. 990 was assessed. No Musalman will now live in Nagla Katar, for it is said that followers of this creed immediately become sick.

Phalauda possesses a school, a post-office and a bazár, in which markets are held on Sundays. It is administered under Act XX of 1856, and in 1901 the income, including a balance of Rs. 576 from the preceding year, amounted to Rs. 1,921, of which Rs. 948 were derived from the house-tax. There are 1,640 houses in the town, of which 1,182 were assessed, the incidence being Re. 0-15-8 per assessed house, and Re. 0-3-7 per head of population. The expenditure for the same year amounted to Rs. 1,700, of which Rs. 588 were devoted to local improvements, Rs. 288 to conservancy and Rs. 572 to the up-keep of the town police force, which consists of ten men of all grades.

PILKHUA, *Pargana* DASNA, *Tahsíl* GHAZIABAD.

A small municipal town, situated, in north latitude 28° 43′ and east longitude 77° 40′, on the road from Ghaziabad to Hapur and Garhmuktesar, at a distance of little over 19 miles from Meerut. Parallel to the road runs the branch line of the Oudh and Rohilkhand Railway from Moradabad to Ghaziabad, with a station here a short distance east of the town. The main site is connected with the Ghaziabad road by a short metalled road. The town lies low except towards the centre. To the west there is a large excavation forming a tank called the Tankhali; to the south-east there is a second used by the Chamars in their trade; and close to the Dehli road there is a new tank

made by a Bania. The principal bazár runs from north to south, and contains about 250 shops, nearly all of which are built of mud. The drainage of the place is very imperfect, but it has been improved by the construction of a cut leading from the east of the town to a small tributary of the Kali which passes about four miles east of the site. On account of the large quantity of stagnant water in the neighbourhood and the numerous canal distributaries that irrigate the town lands the place is unhealthy and fever is very prevalent. The population of Pilkhua at the last census numbered 5,859 persons, of whom 3,078 were males and 2,781 females. Hindus numbered 4,835 as against 1,012 Musalmans and 12 Christians. The population in 1865 was 4,065 persons, but in 1872 it rose to 6,239, and from that time there has been a constant decrease. The chief manufacture of the place is country cloth and a number of looms are still working. A kind of thin cloth dyed in an elaborate manner with spots, and known as *chunri*, is also manufactured for the Dehli market. The pattern is made solely by dyeing. In order to produce this effect the cloth is tied up in knots and is dipped into the dye, the result being that when the knots are loosed the fabric is dyed red and round white spots appear in the place where the knots existed. These cloths are chiefly worn by women at the Nágpanchami festival. There is also a considerable trade in leather and shoe-making; the Chamars of the place have some celebrity, and their goods are exported as far as Calcutta and Bombay. The green leather is imported from Dehli, where it is made by the Musalman leather workers.

Pilkhua possesses a third class police-station, post-office and two sarais. The school is of the upper primary type and is attended by 60 pupils. There is also a lower primary school supported by the municipality. Markets are held on Friday in each week. The place belongs to Mr. Michel of Dasna, but the possession of the village has now gone to Mr. Jackson of Lucknow under the terms of a mortgage.

Pilkhua was administered as a municipality from 1872 to 1904, and on the 1st of April in the latter year it was reduced to the status of a notified area under Act I of 1900. The committee now consists of three members, of whom the tahsildar is

chairman. The income and expenditure of the municipality since 1891 is shown in the appendix.*

A short distance north-west of the town is the small village of Dateri, where there is a pillar of the Great Trigonometrical Survey, at an elevation of 760 feet above the sea.

PUTH, *Pargana* PUTH, *Tahsíl* HAPUR.

The capital of the pargana is a small village standing high above the right bank of the Ganges, in latitude 28° 42′ north and longitude 78° 12′ east, at a distance of eight miles south-east of Garhmuktesar and 34 miles from Meerut. It is now quite an insignificant place, the police-station having been removed to Bahadurgarh, and the population numbering in 1901 but 522 persons. There is a ferry over the Ganges leading to the Moradabad district. The place is traditionally said to have contained the favourite garden of the Hastinapur Rájas and to have been known as Pushpavati, the change in the name being due to the Musalmans. Puth marks the southern termination of the wide khádir of the Ganges, for here the high bank sweeps eastwards to the very edge of the channel.

PUTH, *Pargana and Tahsíl* HAPUR.

This pargana occupies the extreme south-eastern corner of the district, lying between Garhmuktesar on the north and west and the district of Bulandshahr on the south. To the east flows the river Ganges which, as in Garhmuktesar, forms the chief physical characteristic of the tract. There is in this pargana the same low-lying khádir divided off from the upland by a steep cliff, underneath which runs a series of depressions in which the water collects, forming swamps. Beyond this line the khádir is dotted with patches of grass and tamarisk jungle which separate the numerous channels, while in the centre the land stands high and above the ordinary flood-level, but for many years has been rapidly deteriorating owing to the increased presence of *reh* in the soil. At the same time the khádir forms a valuable grazing-ground for the cattle of the numerous Gujars who inhabit the pargana.

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* Appendix, Table XVI.

The upland portion of the pargana bears many traces of the action of the Ganges. In the neighbourhood of the river there is a series of ravines which run generally in a direction from north to south, throwing off spurs of useless sandy land. The western portion of the pargana is marked by a broad belt of sandy *bhur*, which is a continuation of that which has its origin in Garhmuktesar and extends southwards into Bulandshahr. Along this ridge passes the Anupshahr branch of the Ganges canal which has proved an undisguised benefit to the pargana, bringing a large area of the tract within the reach of water. At the same time, owing to the inequality in the levels, a large portion of the pargana is incapable of irrigation. West of the canal the surface sinks rapidly towards a depression consisting of a line of jhíls that continues northwards along the western border of the Hapur pargana and southwards into Bulandshahr. The bulk of the pargana consists of inferior sandy soil, but there is a line of good villages running north and south to the east of the canal.

The total area of the pargana amounts to 42,551 acres or 55 square miles. Of this 27,218 acres or 64 per cent. were cultivated in 1308 Fasli. The bulk of the remainder consists of unculturable ravine land or barren sandy *bhur*. The irrigated area amounts to 71,187 acres, of which 5,905 acres were watered from the canals, 1,105 acres from wells and 108 from other sources. With the construction of the canal the area watered from wells has very greatly decreased, as the capabilities for well irrigation are confined to a narrow belt, which commences on the southern frontier and runs directly through the centre of the pargana. The misfortune is that this particular area is that which chiefly receives the benefit of the canal. With the exception of a few villages to the south-east, the remainder have very little well irrigation and some have absolutely none; consequently it is not surprising that the crops of this pargana are of a somewhat inferior quality to those grown elsewhere. The kharíf area slightly exceeds that sown in the rabi, the chief staples being the inferior pulses, sugarcane, maize and juar. In the rabi there is still a large area under barley, although wheat slightly predominates; the bulk of the remainder is taken up by gram and peas.

The revenue now stands at Rs. 54,845, being at the rate of Rs. 2-6-3 per acre of cultivation. At the settlement of 1840 by Sir H. M. Elliot the demand was Rs. 40,196, rising to Rs. 41,225 at the settlement of 1866. The present enhancement is considerable, but is mainly due to the construction of the canal rather than to any improvement in the style of cultivation.

A striking feature of the pargana is a large area held by occupancy tenants which is accompanied by an extremely low rental. The same rate has prevailed for many years, and practically no enhancement has taken place in this direction, a great deal of the area which has since become irrigable still paying the old rates. Thus the surprising result occurred that the occupancy rental at the recent settlement was lower than that which prevailed thirty years previously, having failed to keep pace even with the improvement in the land. The rates paid by tenants-at-will on the other hand are very high and show a great increase, being considerably in advance of the standard rental of the settlement, which ranged from Rs. 9 to Re. 1-8-0 per acre, according to the nature of the soil.

The chief landowner of the pargana is Rao Umrao Singh of Kuchesar in Bulandshahr, who owns twelve whole villages and portions of five others. Besides five whole villages and three pattis recorded in the name of his daughter, three more villages belong to another branch of the same Jat family. Next to them come Pathans, whose headquarters are at Bahadurgarh and who hold shares in six other neighbouring villages. Close by there is another colony of Pathans in Sherpur, who own three villages. The few remaining villages of the pargana are held by small communities of Rajputs, chiefly of the Chauhan and Tomar subdivisions. The Jats are also the principal cultivators, being followed by Musalman Tagas, Gujars, Rajputs and Musalmans. The Chauhans hold actually the largest area and are on the whole good cultivators; but they do not prosper on account of the fact that they affect the character of petty zamindars, preferring to sublet their land instead of cultivating it.

The total population of the pargana at the last census of 1901 numbered 31,990 persons, of whom 16,780 were males and 15,210

females. Classified according to religions there were 25,487 Hindus, 6,230 Musalmans and 273 others, Aryas, Jains and Sikhs. There has been a large increase during the last forty years, for in 1872 the total was 24,196 persons, rising to 27,200 in 1891. The only place of any size in the pargana is Bahadurgarh, which is separately described. Puth is a small village of no importance, while of the remaining villages Bhadsana alone has a population of over 2,000 inhabitants. Markets are held at Bhadsana, Bahadurgarh and Kanaur. In 1819 Puth was the headquarters of a tahsíl comprising the parganas of Puth-Siyana, Thana Farida and Ahar Malakpur. The last two were transferred to Bulandshahr in 1824, and in 1844 Puth was separated from Siyana and attached to the Hapur tahsíl, Siyana being given to Bulandshahr. One village was added to Puth in 1853, and the number now stands at forty-eight.

The pargana is very destitute of communications, possessing neither railway nor metalled road, although the stations of Garhmuktesar and Baksar of the Oudh and Rohilkhand Railway are within reach of the northern border. A poor unmetalled road runs from Garhmuktesar to Bulandshahr, with a branch leading to Bahadurgarh, and this, with the exception of the path along the canal, forms the sole means of communication of the pargana. There is a canal bungalow at Palwara.

PUTHI, *Pargana* KITHOR, *Tahsíl* MAWANA.

A very large village adjoining Parichhatgarh, which lies to the south-west, at a distance of some 16 miles from Meerut. Through the western borders of the village runs the road from Mawana to Kithor, and parallel to this on the east is the Anupshahr branch of the Ganges canal, which is here crossed by a bridge. The population has risen from 2,010 in 1865 to 3,395 in 1901, and is chiefly composed of Gujars, Tagas and Chamars. It formed part of the jagir of the Gujar Raja, Nain Singh, of Parichhatgarh and a *malikana* is still paid to his family from the revenues of the village. There is a village school here. The place stands in latitude 29° 0′ north and longitude 79° 58′ east.

RAMALA, *Pargana* CHAPRAULI, *Tahsíl* BAGHPAT.

A large village situated, in latitude 29° 13′ north and longitude 77° 17′ east, on the eastern borders of the pargana between Kirthal on the west and Asara on the east. Through the village lands passes the Jumna canal, which runs a short distance east of the main site, and the unmetalled road from Bághpat to Baraut and Asara. The canal is spanned by a bridge near the village and the lands are watered by two distributaries, which take off a mile above it. The population in 1901 amounted to 3,303 persons, of whom 2,759 were Hindus, 417 Musalmans, and 127 Jains. Jats form the majority of the Hindu population and are the proprietors of the village. There is a canal inspection-bungalow here.

RANCHHAR, *Pargana* BARNAWA, *Tahsíl* SARDHANA.

A village lying on both sides of the Kirsani nadi adjoining Bamnauli on the south. The main site stands high above the ravines on the south bank of the river, in latitude 29° 7′ north and longitude 77° 23′ east. It lies at a distance of two miles north of the road from Sardhana to Binauli and Baraut, at a distance of three miles from Binauli. An unmetalled track leads northwards to Dáha and thence into the Muzaffarnagar district, where it joins the road from Meerut to Shamli. It contained in 1901 a population of 3,036 persons, the bulk of whom are Jats, who are the proprietors of the village. It is a place of no importance except for the size of its population, the only public building being the primary school.

RASULPUR, *Pargana and Tahsíl* MEERUT.

Rasulpur or Rasulpur-Rohta, as it is commonly called to distinguish it from Rasúlpur-Dhaulri and other villages of a similar name in this pargana, lies on the road from Meerut to Binauli and Baraut, in latitude 29° 2′ north and longitude 77° 33′ east, at a distance of ten miles from Meerut and nearly two miles west of the Ganges canal. It contained in 1901 a population of 3,301 persons, of whom 2,733 were Hindus and 568 Musalmans. Jats are the prevailing Hindu caste and who are also the proprietors of the village. A market is held here weekly.

SADIQPUR-SANAULI, *Pargana* KUTANA, *Tahsíl* BAGHPAT.

A large village lying, in latitude 29° 8′ north and longitude 77° 13′ east, on the east side of the road from Baraut to Tanda, at a distance of 16 miles from Baghpat and 36 miles from Meerut. It contained in 1901 a population of 3,312 persons, of whom 2,955 were Hindus, 261 Musalmans and 96 Jains. Jats form more than half the Hindu population and are the possessors of the village. In former days it belonged to the estate of Begam Somru of Sardhana. There is a village school here. The lands are watered by the Nala rajbaha of the Jumna canal, which flows at a distance of nearly a mile east of the main site.

SALAWA, *Pargana and Tahsíl* SARDHANA.

This village occupies the extreme north-east corner of the tahsíl. It lies a mile to the west of the Ganges canal from which two distributaries here take off, at a distance of seven miles north-east from Sardhana and eighteen miles from Meerut. There is a regular bazár here, with an attendant "chaukrayat" or beadle; the market-day is Tuesday. The population in 1901 numbered 4,766 persons, of whom 3,547 were Hindus, 926 Musalmans and 293 Jains. The agriculturists are mostly Rajputs, but there is also a large number of Jats. Salawa possesses a canal inspection-bungalow, a post-office, and an upper primary school. The situation of Salawa is in north latitude 29° 14′ and east longitude 77° 40′. There is a bridge over the canal called after the village, and close by is an inspection-bungalow.

SAPNAWAT, *Pargana* DASNA, *Tahsíl* GHAZIABAD.

A village on the road from Dasna to Dhaulana and Gulaothi in Bulandshahr, situated in latitude 28° 37′ north and longitude 77° 44′ east, at a distance of five miles east of Dhaulana and 26 miles from Meerut. It is said to have been founded by Rana Rashid of Dhaulana, and was originally called Aspnawat, because its boundary was fixed by the circuit taken by the Rana's horse round the settlement. It now belongs to Gahlot Rajputs. The total population at the last census amounted to 2,936 persons, nearly half of whom are Gahlots. There is a primary school

here. The village lands, which are very extensive and include Latifpur and other hamlets, are watered from the left Dasna distributary of the Ganges canal.

SARAWA, *Pargana* SARAWA, *Tahsíl* HAPUR.

The capital of the pargana lies, in latitude 28° 47′ north and longitude 77° 43′ east, on the right bank of one of the branches of the Kali Nadi near the road from Hapur to Begamabad, and about three miles west of the metalled road from Meerut to Hapur, at a distance of about 14 miles from Meerut. It contained in 1901 a population of 3,221 persons, of whom 1,500 were Musalmans. There is a school, a post-office, and a weekly market here. It was formerly called Fatehgarh and was founded in the time of the Ghori kings of Dehli. The name Sarawa was given to it by the Tagas, the word "sirái" meaning "cultivator." The town was in 1737 A.D. the Diwankhana of Rája Dilaram, a follower of the Rohilla, Najib-ud-daula. The son of Dilaram received another jagir at Ahmadgarh in Bulandshahr from Muhammad Shah, whereupon he left Sarawa, and from that time the place has decreased in importance. Most of the land is now held by Hindu Tagas and Sheikhs, of whom the latter possess a revenue-free grant of 333 acres. There are two old *kheras* near the village site, named Kharkali and Jalalpur. The Jami Masjid bears a Persian inscription with the date 1112 Hijri.

SARAWA *Pargana, Tahsíl* HAPUR.

This small pargana occupies the north-western corner of the tahsíl, lying between Meerut on the north and the pargana of Hapur on the south, the latter also forming the eastern boundary. To the west lies the Jalalabad pargana of the Gháziabad tahsíl. It has a total area of 49,218 acres or nearly 77 square miles. The most important physical features of the tract are the streams which traverse the pargana from north-west to south-east. The chief of these is the Kali Nadi, which enters the pargana from Meerut on the north and cuts off a considerable corner in the north-east. Along the western border runs a stream, which is generally known as the Chhoiya, while in the extreme north-

eastern corner there is another stream also known as the Chhoiya. All these streams run in narrow beds which cover a comparatively small area. Along the western Chhoiya the land is mostly uncultivated except in the village of Sarawa itself. The khádir of the Kali Nadi is an insignificant strip of land which produces good crops in a dry year, although in wet seasons it is liable to waterlogging. The canal authorities, in order to remedy this evil and also with the intention of providing channels for the water brought down by the drainage cuts, straightened and deepened all these three streams—a measure that has undoubtedly been beneficial in some ways, but at the same time has rendered irrigation from the Kali Nadi if not impossible, at least costly and difficult. All along the lines of these streams lie sandy ridges which are less marked in the case of the western Chhoiya. From these ridges lateral spurs of *bhur* extend in every direction, causing much diversity in the character of the soil. In the neighbourhood of the Kali Nadi the soil is a red gritty loam, which runs north as far as the sharp *bhur* ridge which stretches east and west along the Meerut border. Beyond this ridge we find an excellent loam of an altogether different character. The worst soil is that which prevails in the eastern portion of the pargana where the largest area of *bhur* is to be found. These patches of *bhur* are never continuous but, generally speaking, run in a broken line from north to south parallel to the Meerut road.

In 1308 fasli out of the total area, 39,988 acres or 81 per cent. were cultivated, the remainder consisting of soil that is either absolutely barren or else too poor to admit of remunerative cultivation. There has been a small increase in cultivation in the few years that have elapsed since the settlement, but with this exception the pargana has been practically stationary for a considerable period. Owing to the presence of the three streams there is very little canal irrigation, which is in fact only found in three villages in the south-west corner. The actual irrigated area in 1308 fasli amounted to 7,217 acres, of which 654 were watered from the Ganges canal, 6,466 acres from wells and 97 acres from other sources. There has been some decrease in this direction of late years owing to the deepening of the Kali Nadi,

but the well watered area remains practically the same as it was forty years ago. The principal harvest is the rabi, which in the year of settlement covered 25,958 acres as against 18,050 acres sown in the kharíf. The double-cropped area of the same year amounted to 5,668 acres, or nearly 15 per cent. The chief staples are wheat, gram and peas in the rabi and juar, maize, cotton and sugarcane in the kharíf. The revenue of the pargana now stands at Rs. 84,455, being at the rate of Rs. 2-3-10 per acre of cultivation. In 1840 the demand was Rs. 52,552, rising to Rs. 60,850 at the settlement of 1866, which shows an increase of 26 per cent. at the recent revision. The rents vary very greatly throughout the pargana owing to the great difference in the soils. The average rental is an entirely delusive guide when we consider that the circle rates of the recent settlement ranged from Rs. 10-8-0 to Rs. 1-8-0 per acre.

The chief zamindars of the pargana are the Tagas, who own more than half of the whole area. They are on the whole well off and prosperous. Their chief centre is at Kharkhauda, the Taga community of which village hold seven entire villages in the neighbourhood and shares in several others. The other important Taga communities are those of Bijauli, Panchi and Nigauli. Next to the Tagas come Sheikhs, who hold fifteen per cent. of the whole pargana; the chief of them is Hafiz Abdul Karim of Meerut. The remaining proprietors are Jats with three villages, the Rajputs of Nandali, and Banias who possess a few mahals. The small area held by the last-mentioned caste is a fairly sure sign that the pargana, though a poor one on the whole, has not been over-assessed. The principal cultivators are Gujars, Tagas, both Hindus and Musalmans, Brahmans, Jats, Chamars, Mewatis and Rajputs. With such cultivators the pargana can hardly be said to have a fair chance, as the foremost class of cultivators is practically non-existent here.

The total population of the pargana at the census of 1901 numbered 41,742 persons, of whom 21,598 were males and 20,144 females. Musalmans are found in a comparatively large proportion, the total number being 11,846. In 1872 the total population was 37,255 persons, falling to 35,008 in 1881, since which year there has been a constant increase. Sarawa is the only town

of the pargana, but it is a small place of no importance. The large villages of Karkhauda, Mundali and Ajrara have been separately described, but besides these there is not a single village deserving of even passing mention. In the days of Akbar the pargana contained four tappas, Bhojpur, Kharkhauda, Kithor and Ajrara. In 1809 Ajrara and Bhojpur were constituted separate parganas forming part of the Sarawa tahsíl. The Hapur tahsíl was formed in 1819 and Ajrara was united with Sarawa, while Bhojpur was given to Jalalabad.

Through the centre of the pargana runs the metalled road from Meerut to Hapur and Bulandshahr, passing through the village of Kharkhauda. The only other road in the pargana is the unmetalled line from Hapur to Begamabad, which traverses the south-western corner, running about two miles south of the town of Sarawa. Post-offices are established at Sarawa and Kharkhauda.

SARDHANA, *Pargana and Tahsíl* SARDHANA.

The chief town of the pargana and tahsíl of the same name lies, in latitude 29° 9′ north and longitude 77° 38′ east, at a distance of about 12 miles from Meerut, with which it is connected by a metalled road. A short distance east of the town flows the main Ganges canal, which is crossed by a bridge over which a road leads to Sardhana station on the North-Western Railway, a distance of about six miles. Unmetalled roads lead to Baghpat, Baraut and Shamli in Muzaffarnagar.

The site is low throughout, in a country covered with canal irrigation and abounding in shallow depressions which imperfectly fulfill the duty of drainage lines. To the north of the town is Lashkarganj and the old fort of the Begam Somru, between which and the main site is a considerable plain. There are five muhallas, one of which is Lashkarganj, founded by the Begam as a camp for her troops, while the plain formed the parade-ground. To the south-east of the town there appears to be the remains of some attempts at fortification. Traces of a low ditch still remain, and the road crosses this by a low embankment and winds towards the Begam's palace. From

thence it turns at right angles in a westerly direction towards the centre of the town and forms the principal road. There are a few good masonry houses in the western portion, but as a rule the shops are poor and many are in ruins. The chief market-place is Lashkarganj, which is connected with the town by a metalled road. It contains two main streets laid at right angles to one another, with a circular space at the point of junction. Markets are held on Friday in every week. A fair is held here annually in March, in honour of Burha Babu. The tahsíli buildings stand in a square enclosure, which also contains the police-station and post-office. Close to it is a Christian village. There is a canal bungalow in the town. The old fort of the Begam in Lashkarganj is in ruins, but the palace on the east of the town is a fine house, with a grand flight of steps at the entrance and extensive grounds. It is in good repair, having been purchased by the Roman Catholics and is now used as an orphanage. There was a fair collection of pictures, but these have been sold. The Roman Catholic Cathedral, built in 1822, and St. John's College are both outside the town; the former is a rather imposing building, standing in a very large enclosure surrounded by a fine ornamental wall. The college is a low masonry house, which was once the Begam's residence. It is intended for the instruction of native priests and is supported from an endowment made by the Begam. There are four Jain temples in the town, the finest of which is the Chakrawala.

According to tradition Sardhana was founded by one Rája Sarkat, whose family ruled till the invasion of Musalmans, when all of them were expelled. After a time the place became the property of Dhusar and Bishnoi Mahajans, who were in turn driven out by the Tagas at the end of the eighteenth century. It is at present held by Tagas and by the descendants of the Afghan, Nawab Jan Fishan Khan.

Since the death of Begam Somru the place has considerably decayed. In 1853 it had a population of 13,760 inhabitants, falling to 12,469 in 1872, since which time it has remained stationary, for in 1901 the total amounted to 12,467. Of these 6,486 were males and 5,981 females. Hindus numbered 5,350, Musalmans 5,393, Jains 855, Christians 838, and Sikhs and Aryas

31. Since the construction of the canal the water-level has risen very greatly and the place is generally unhealthy, except in years of deficient rainfall. Sardhana was for many years administered under Act XX of 1856, but in 1883 the operations of this Act were withdrawn and the place was formed into a municipality. The board consists of twelve members, of whom nine are elected, three being returned from each ward. The income in 1902 amounted to Rs. 13,467, including a balance of Rs. 1,612 from the preceding year. The chief source of income was the usual octroi tax on imports, which amounted to Rs. 9,744, while Rs. 948 were derived from the sale of manure and Rs. 684 from the revenue from markets. The expenditure for the same year amounted to Rs. 12,461, of which Rs. 3,043 were devoted to drainage and public works, Rs. 2,832 to the cost of administration, Rs. 2,219 to conservancy, Rs. 2,026 to the up-keep of the police, Rs. 648 to the dispensary and Rs. 339 towards the maintenance of educational establishment. The latter comprise a lower primary school for boys with 80 pupils on the rolls and five indigenous vernacular schools.*

SARDHANA *Pargana, Tahsíl* SARDHANA.

This pargana forms the eastern half of the tahsíl, being divided from Barnawa by the Hindan river. To the north lies the Muzaffarnagar district, and to the south and east the large pargana and tahsíl of Meerut. It has a total area of 87,460 acres, or rather more than 136 square miles.

The bulk of the pargana consists of a good level upland of excellent quality, with a sandy ridge that runs eastwards from the point where the Hindan enters the pargana on the north and extends through the northern half of the pargana, with a south-easterly course as far as Khirwa on the eastern borders. In the south-east corner there is a small low-lying tract that forms the northern extremity of a depression that continues through the whole district. All along the Hindan the high bank is much scarred by ravines, and below this there is a narrow sandy khádir, much deteriorated of late years, but still possessing some fair cultivation. The soil of the central portion is a rich dark loam,

* For further details see Appendix, Table XVI.

which produces the finest crops in both harvests. Of the total area 69,189 acres or 79 per cent. are cultivated, showing a great increase in the few years that have elapsed since the settlement. The barren area amounts to 9,617 acres, which are either covered with water or represent land that would never repay cultivation or are covered by village sites. Means of irrigation are ample. The Ganges canal traverses the eastern half from north to south, with numerous distributaries that water all but the extreme western belt. There are also numerous wells, the total irrigated area in 1308 fasli being 23,470 acres, of which 18,900 acres were watered from the canal, 4,443 acres from wells, and 127 acres from other sources. Formerly the well irrigation was a characteristic of this tract, but they have now been supplanted by the canals—a somewhat doubtful benefit in the experience of many, owing to the uncertainty of the water-supply. The principal harvest is the rabi, and nearly 20 per cent. bears a double crop. The rabi staples are wheat, gram and peas, which cover almost the whole sown area, while in the kharíf juar takes the lead, closely followed by sugarcane; maize, cotton and rice constituting the bulk of the remainder.

The revenue now stands at Rs. 2,11,945, being at the average rate of Rs. 3-5-7 per acre of cultivation and calculated at 48·61 per cent. of the net assets. The average rental for the various circles ranges from Rs. 8-7-10 to Rs. 2 per acre in the case of occupancy tenants, and from Rs. 13-5-11 to Rs. 2-6-5 per acre for tenants-at-will. Formerly the whole pargana formed part of the estates of the Begam Somru, whose mode of settlement was that calculated to extract the very last anna that a cultivator could pay. The village rent-rolls were framed on money and rates for produce graduated to the caste of the cultivators, of whom the Jats held the first rank. Her rates ran almost double of those that prevailed in the adjoining British territory, while in addition to the regular revenue cesses were added, one of which was fluctuating according to the amount of the land revenue, on which it amounted to seven per cent., and the other fixed, intended as a commutation for *bhet*, *nazarana*, and other presents to tax-collectors which the Begam professed to reimburse them for. To these items were added balances of *taqávi* and arrears, all of

which together formed the debit side of the accounts of each village to which the collections were credited.

In realizing the revenue the *taqávi* advances were first recovered with interest at 25 per cent. per annum, then a second deduction at Rs. 7-5-0 per cent. was made for loss in exchange on inferior rupees, which was continued even when full weight rupees were current. Taking the average rent-roll of the whole estate for 20 years at Rs. 5,49,847, the sum of Rs. 34,744 was allowed as nankár, leaving Rs. 5,15,103, to which must be added Rs. 34,054 as cesses, making a total demand of Rs. 5,49,157. That there was such a small arrear as Rs. 19,439 through such a long series of years is due to the fact that sugarcane, the principal crop, was grown on a system of *taqávi* or advances. These the cultivator was forced to accept, and the collectors inspected the villages each year and obliged each one to till as much land as his means would allow. Lambardárs, or headmen of villages, were also allowed to levy a fee, amounting to twelve per cent. on the revenue. In good villages sugarcane land was rated at Rs. 18 per *bígha*, and many villages paid as high as ten rupees per acre on the cultivated area, so that many villages were obliged to eke out their revenue by taxing trades, hiring carts and the like. In fact the cultivators were only left sufficient to keep body and soul together. Mr. Plowden writes: "The rule seems to have been fully recognised and acted up to by the Begam, which declared that according to Muhammadan law 'there shall be left for every man who cultivates his land as much as he requires for his own support till the next crop be reaped, and that of his family and for seed. This much shall be left to him; what remains is land-tax and shall go to the public treasury.' For considering her territory as a private estate and her subjects as serfs, she appropriated the whole produce of their labour, with the exception of what sufficed to keep body and soul together. It was by these means, and by nicely keeping the balance and always limiting her demand to the exact point of endurance, and with equally due regard to favourable or unfavourable seasons, that a fictitious state of prosperity was induced and maintained, which, though it might and I believe did, deceive the Begam's neighbours into an impression that her country was highly prosperous, could not

delude the population into content and happiness. Above the surface and to the eye all was smiling and prosperous, but within was rottenness and misery. Under these circumstances the smallness of the above arrear is no proof of the fairness of the revenue. It rather shows that the collections were as much as the Begam's ingenuity could extract, and this balance being unrealizable, the demand was by so much at least too high." As long as the Begam retained possession of her energy and strength, this system, the product of her own tact and shrewdness, flourished. But when her heir attempted to meddle in the administration during the last few years of her life, the fictitious nature of the prosperity of her estates became apparent. He abandoned the old system and its advances and made a settlement for three years. Adopting the old demand *plus* cesses, he allowed only a set-off of five per cent. and attempted to collect the rest as regular revenue. The net revenue of this settlement for 1243 fasli was Rs. 6,91,388, exclusive of 35 villages held under direct management. This resulted in an increase of a lakh of rupees in the demand, while no assistance was rendered in bad seasons or when untoward circumstances affected the cultivator. The result may be easily imagined: in the first year of the lease 92 villages fell under direct management, in the second six, and in the third 28 more villages, amounting to one-third of the whole estate. Ruin was impending, when the Begam's death in January 1836, and the consequent lapse of the estate to the British, induced the cultivators to return to their homes.

Mr. T. C. Plowden was appointed to settle the parganas. A summary settlement at a uniform reduction of nineteen per cent. on the lease was first made to allow of preparations being made for a regular settlement. Mr. Plowden apparently put aside the Begam's collections and found Rs. 5,44,000 a fair sum for the Government demand which he distributed over the parganas and then on each village. This work, from the absence of all data that could be relied upon, was not very satisfactorily performed. For we find from Mr. Forbes' report that the most startling inequalities in assessment were perpetrated. Some estates paid less than one-third of their net assets as land revenue, whilst others had only cultivating profits left them. These inequalities

were most glaring in every pargana in the case of the Jat proprietors, who seem to have been ground down to the utmost. The cause for this is not difficult to discover. The Begam's diwán was a Taga, between whose clansmen and the Jats there has ever been the bitterest enmity. The feud was heightened by the murder of the Taga diwán of Bamnauli in Barnáwa by the Jats of the neighbouring villages.

"In this way," writes Mr. Forbes, "by placing the slightest dependence upon an average of collections the injustice which springs from old party-feuds has been continued up to the present time." It has been one of the principal objects of the framers of the new settlements to correct these inequalities which, however, have become so stereotyped as to be incapable of removal at once. The reduction in the assessment of over-taxed estates has been accomplished, but it has not been possible all at once to raise the demand on the Taga villages to the full quota which the State has a right to demand. However, the relief from cesses and miscellaneous dues and other exactions effected by Mr. Plowden was sufficient to give the Jats new life. Their industry was redoubled, and not only did they occupy fully their own villages, but swarmed out into those around, forming the most valuable tenantry of those landowners who were too proud to cultivate their own estates or were unable to manage them.

The total demand at Mr. Plowden's settlement was Rs. 1,57,714, which rose to Rs. 1,71,180 at the settlement by Mr. Forbes in 1866. The revenue shows an increase of 22·86 per cent., and is calculated at 48·61 per cent. of the net assets.

The pargana is almost wholly held on bhaiyachara tenure. The family of the Nawabs of Sardhana hold shares in 22 villages, but there are no other large proprietors. The best villages belong to Jats, but the Rajputs are much the most important proprietary caste, holding nearly half the pargana. The bulk of the remainder belongs to Tagas. These proprietors are also the chief cultivators; all of them are hardworking and careful husbandmen and the standard of cultivation is high.

The total population at the last census was 99,531 persons, of whom 52,691 were males and 46,840 females. Classified according to religions there were 67,927 Hindus, 26,658 Musalmans, and

4,946 others, chiefly Jains with a few Sikhs, Christians and Aryas. In 1872 the total was 82,401 souls, rising to 91,857 in 1891. There are 65 villages in the pargana, the chief being the municipal town of Sardhana. Of the rest many are of considerable size, Kahwai, Harra, Chhur, Malehra, Aurangnagar, Salawa, Karnawal and Dabathua have large populations and are separately mentioned.

Means of communication are fair. Sardhana is connected with Meerut by a good metalled road, and another road leads east to Sardhana railway station on the North-Western line, a distance of six miles. Unmetalled roads lead from Sardhana to Baghpat, Baraut and Shamli in Muzaffarnagar, while another road runs direct from Meerut to Shamli leaving the metalled road to Sardhana near Dabathua. There are post-offices at Sardhana, Salawa and Malehra, and canal bungalows at Salawa, Sardhana, Rardhana, Kaland, Karnawal and Khirwa.

SARDHANA *Tahsíl.*

This is the smallest subdivision of the district, consisting of the two parganas of Sardhana and Barnawa, which are separated by the Hindan river. It lies in the north of the district between pargana Baraut of tahsíl Baghpat on the west and the Meerut tahsíl on the east. To the south lie the parganas of Meerut and Baghpat. The two parganas of this tahsíl have been separately described with a detailed account of their physical characteristics, revenue, agricultural and land tenures. The only town of the tahsíl is Sardhana, the headquarters, which is the residence of the tahsildars. There are, however, many large villages, notably those which compose the Chaugaon of pargana Barnawa, and all these have been described in separate articles. For the purposes of police administration there are stations at Sardhana, Daha and Binauli. Post-offices are to be found at Sardhana, Malehra, Barnawa, Binauli, Daha and Nirpura. There is no railway in the pargana, but the North-Western line runs close to the eastern border, the nearest station being that of Sardhana, some six miles to the east of the town of that name. The only metalled road in the tahsíl leads from Meerut to Sardhana, whence unmetalled roads lead to Binauli and Baraut, to Sardhana railway-station, to Baghpat, and to

Shamli in Muzaffarnagar. A second road runs to Shamli from Meerut leading the metalled road to Sardhana at Dabathua. Another road connects Meerut with Binauli. Through the eastern portion of the tahsíl flows the main Ganges canal with inspection-bungalows at Salawa, Sardhana, Rardhana, Kaland, Karnawal and Kirwa. A small portion of pargana Barnawa is within reach of the Eastern Jumna canal and there is a bungalow at Fazilpur.

The population of the tahsíl at the last census numbered 180,141 persons, of whom 95,836 were males and 84,305 females. Hindus very largely predominate, numbering 131,647, while of other religions there are 38,980 Musalmans, 7,567 Jains, 1,340 Christians, 499 Aryas, five Sikhs and three Parsis. The Christian population is chiefly to be found within municipal limits of Sardhana. Among the Hindus, Jats take the lead, numbering 27,437. Next to them come Chamars, 21,759; Rajputs, 13,612; Kahars, 8,150; Bhangis, 6,774, and Tagas, 6,410. Besides these Gujars, Rawas and Banias are found in considerable numbers. The Rajputs are of many clans, the chief being Chauhans, Kachhwahas, Gahlots, Bhale Sultans and Tomars. The Rajputs are more numerous in this tahsíl than elsewhere in the district, and here, too, they hold a more conspicuous position, as they own a large part of Sardhana pargana. The Jats chiefly prevail in Barnawa, their stronghold being the four large villages of the Chaugaon. Among the Musalmans the most numerous are converted Rajputs, chiefly of the Chauhan clan. Next to them come Sheikhs, Julahas and Telis, no other subdivision possessing 2,000 representatives. The tahsíl is almost entirely agricultural and most of the land is cultivated by the zamindars themselves, tenants being comparatively very few in number. The chief industrial occupations are those of the cotton-weavers, grain-dealers, potters, shoemakers and carpenters. There is nothing peculiar about any of the occupations of this tahsíl, since there are no special manufactures, and the occupations of those who are not engaged in agriculture are merely such as are found in every tahsíl of the division.

SARURPUR, *Pargana* KUTANA, *Tahsíl* BAGHPAT.

A very large village on the west side of the road from Baghpat to Baraut, at a distance of six miles from the former and 29 miles

from Meerut. It contains a population of 6,720 inhabitants, of whom 385 are Jains, while the great number of the inhabitants are Jats, to whom the village belongs. There is a village school here and a canal inspection-bungalow recently constructed. The place stands in latitude 29° 2′ north and longitude 77° 41′ east. The village lands are watered by the Barauli rajbaha of the Jumna canal, which flows to the west and south, crossing the road about half a mile south of the village.

SHAHDARA, *Pargana* LONI, *Tahsíl* GHAZIABAD.

This town lies on the metalled road from Dehli to Ghaziabad and Meerut, in latitude 28° 40′ north and longitude 77° 18′ east, at a distance of about five miles from Dehli and 31 miles from Meerut. It possesses a railway-station on the East Indian Railway which runs to the south of, and parallel to, the road. An unmetalled road leads northwards to Loni and Baghpat. To the west of the town flows the Eastern Jumna canal, which joins the river at a distance of about three miles from Shahdara. The place was founded by Shahjahan, the name signifying the royal gate. His object was to make Shahdara a market for the supply of grain to the troops. Dalhai muhalla was destroyed by Suraj Mal, the Jat chieftain of Bhartpur, and just before the battle of Panipat the town itself was plundered by the soldiers of Ahmad Shah Durani. It is a decaying place, being too near to Dehli for trade purposes. The only products for which the town has any celebrity are sweetmeats and *dál*, while there is a small manufacture of shoes and leather and certain amount of sugar-refining. Shahdara contains a second-class police-station, an Imperial post-office and a lower primary school attended by 67 pupils and aided by the municipality. The population of the place in 1865 was 7,227 persons, but since that time there has been a steady decrease, the numbers at the last census being 5,540, of whom 3,057 were males and 2,483 females. Classified according to religions there were 3,894 Hindus, 1,365 Musalmans, 191 Christians, and 90 Jains and others. The principal inhabitants are Mahajans and Brahmans, to the latter of whom the town lands belong. Shahdara was till the 1st of April, 1904, administered as a municipality, and was then reduced to

the status of a notified area under Act I of 1900; it is managed by a small committee under the tahsildar. The income and expenditure since 1891 are shown in the appendix.* The drainage of the place is defective and sanitation has always been unsatisfactory, the chief cause being the lack of funds. The water of the town is bad and the drinking supply has to come from outside.

SHAHJAHANPUR, *Pargana* KITHOR, *Tahsíl* MAWANA.

A large village on the metalled road from Meerut to Garhmuktesar, situated in latitude 28° 52′ north and longitude 77° 58′ east, at a distance of 17 miles from Meerut and about a mile and a half east of Kithor. It lies on both sides of the Meerut road, on the southern side of which there is a large irregular excavation full of water, which serves for the reception of the drainage. To the west of this there is a small bazár of poor mud huts where a market is held on Saturdays. The main site consists of five large havelis enclosed by brick walls, around which the mud-built house of the people congregate. It is a purely agricultural village with a post-office, a Government school, a small Musalman school, and a canal inspection-bungalow. There is a large military encamping-ground north of the road and close to the canal. The population in 1901 numbered 4,099 persons, of whom 1,788 were Hindus and 2,311 Musalmans. Of the latter a large number are Pathans whose ancestors came here with the founder, Nur Khan, in the reign of Shahjahan. The village belongs to Tagas.

SHAMSHER, *Pargana* JALALABAD, *Tahsíl* GHAZIABAD.

A small and insignificant village on the left bank of the Hindan river, five miles north-west of Gháziabad and 23 miles from Meerut. It has now a population of only 305 persons, but was formerly a place of considerable importance. The former inhabitants were Kayasths in the service of the Hindu kings of Dehli, and were so wealthy that they numbered among them no less than fifty-two owners of elephants. It was ravaged by Shahab-ud-din and Ala-ud-din, and the Kayasths fled, never to

* *Vide* Appendix, Table XVI.

return till the days of Shah Alam. There are now a few Kayasth families, while the cultivators are mainly Jats. The village stands in latitude 28° 44′ north and longitude 77° 25′ east.

SINGAULI AHIR, *Pargana and Tahsil* BAGHPAT.

This village lies a mile to the north of the metalled road from Baghpat to Meerut, at a distance of 12 miles from Baghpat and two miles from Baleni police-station. As its name implies it belongs to a large colony of Ahirs, who also own Baleni and one or two other villages in the pargana. It contained in 1901 a population of 3,244 persons, of whom 666 were Musalmans. It is situated in north latitude 28° 58′ and east longitude 77° 25′. A mile north of the village is Aminnagar Sarai, and to the east there is a large stretch of waste and barren land.

SIWAL, *Pargana and Tahsil* MEERUT.

A very large village, lying, in latitude 28° 56′ north and longititude 77° 32′ east, on the right bank of the Ganges canal, about two miles south of the metalled road from Meerut to Baghpat, at a distance of twelve miles from the former. It possesses a weekly market and a population that in 1901 amounted to 3,781 persons, of whom 2,430 were Musalmans. The bulk of the population are Rajputs of the Pundir clan, to whom it belongs, Siwal being the chief Rajput centre of the pargana. There is a Government village school here and a Hindu temple. The village is drained by the Siwal cut, which runs south to Patla in Jalalabad and thence west into the Hindan.

SURANA, *Pargana* JALALABAD, *Tahsil* GHAZIABAD.

A large village on the left bank of the Hindan. It is traversed by the road from Muradnagar to Baghpat and lies at a distance of eight miles from Muradnagar and 17 miles from Meerut. It is the chief village of the Ahirs in this pargana. It had in 1901 a population of 3,499 inhabitants, of whom 3,222 were Hindus, more than half of whom are Ahirs. There are several temples here, and a fair in honour of Debi is held annually on the river bank. A village school is maintained

here. It lies in latitude 28° 51′ north and longitude 77° 26′ east; the village stands high and is drained by the ravines leading down to the valley of the Hindan.

TATIRI, *Pargana and Tahsīl* BAGHPAT.

A village on the north side of the metalled road from Baghpat to Meerut adjoining the lands of Baghpat on the east. It is situated in latitude 28° 57′ north and longitude 77° 16′ east, at a distance of three miles east of Baghpat and 28 miles from Meerut. It is noticeable only for its population, which in 1901 amounted to 3,304 persons, nearly all of whom are Rawas, who are the owners of the village and in prosperous circumstances. This is the only village they hold in the pargana, but they own two others in Kutana. There is a Government primary school here. The village lands are watered by the Khekra rajbaha of the Jumna canal.

TIKRI, *Pargana* BARNAWA, *Tahsīl* SARDHANA.

A large village or town in the north of the pargana, situated in latitude 29° 14′ north and longitude 77° 21′ east, at a distance of 27 miles from Meerut. It forms part of the Chaugaon or tract of four villages, which occupy almost the whole of the northern half of the pargana. The other villages are Daha, Doghat and Nirpura. Tikri lies to the west of Nirpura and Doghat, on the sandy tract above the Kirsani nadi. It consists of six pattis or subdivisions, Ratnara, Dabra, Menawara, Dhamara, Chhajyana and Bhojyara. These pattis were all formerly held by coparceners, but of late years there has been a large number of partitions. There is no road near the village, but cart tracks communicate with all the surrounding places. The place is said to have been founded by a Jat named Theruis, and the present occupants are his descendants. The population at the last census numbered 7,297 persons, of whom 5,651 were Hindus, 1,002 Musalmans and 644 Jains. Jats form the bulk of the Hindu population. Tikri is a purely agricultural village and is only noticeable on account of its enormous size. There is a primary school here.

UPEHRA, *Pargana and Tahsíl* HAPUR.

A small village situated, in latitude 28° 44′ north and longitude 77° 54′ east, on the road from Hapur to Garhmuktesar, at a distance of eight miles from Hapur and twenty miles from Meerut. It contains a police outpost and an aided village school, but is otherwise of no importance. The population in 1901 numbered 1,558 persons. There is a military encamping-ground here on the route from Dehli to Moradabad, about two miles east of the Government stud at Babugarh. To the north of the village flows the small drainage channel known as the Chhoiya, which ultimately joins the Kali nadi.

GAZETTEER

OF

MEERUT.

APPENDIX.

GAZETTEER

OF

MEERUT.

APPENDIX.

CONTENTS.

TABLE I.—*Population by Tahsíls*, 1901.

Tahsíl.	Total.			Hindus.			Musalmans.			Others.		
	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12	13
Meerut ...	342,143	184,381	157,762	233,210	125,750	107,460	101,118	53,754	47,364	7,815	4,877	2,938
Gháziabad ...	276,518	147,598	128,920	211,589	113,532	98,057	62,545	32,746	29,799	2,384	1,320	1,064
Mawana ...	200,399	105,481	94,918	148,444	78,458	69,986	49,445	25,652	23,793	2,510	1,371	1,139
Baghpat ...	297,506	159,617	137,889	241,814	129,879	111,935	46,293	24,631	21,662	9,399	5,107	4,292
Sardhana ...	180,141	95,836	84,305	131,747	70,432	61,315	38,980	20,298	18,682	9,414	5,106	4,308
Hapur ...	243,468	127,650	115,818	178,924	94,474	84,450	61,514	31,607	29,907	3,030	1,569	1,461
Total ...	1,540,175	820,563	719,612	1,145,728	612,525	533,203	359,895	188,688	171,207	34,552	19,350	15,202

TABLE II.—*Population by Thánas*, 1901.

District.	Serial number of thána.	Name of thána.	Total population.			Hindus.			Musalmans.			Others.		
			Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Fe-males.
	1	Meerut ...	98,369	53,163	45,206	54,434	29,891	24,543	41,638	22,053	19,585	2,297	1,219	1,078
	2	Sadar Bazár ...	24,317	14,486	9,831	15,371	9,103	6,268	6,876	3,943	2,933	2,070	1,440	630
	3	Baksarkhera ...	29,937	15,598	14,339	20,974	11,081	9,893	8,801	4,457	4,344	162	60	102
	4	Kankarkhera ...	14,948	7,935	7,013	11,341	6,004	5,337	3,387	1,806	1,581	220	125	95
	5	Lalkurti ...	15,072	8,487	6,585	6,997	3,816	3,181	6,389	3,357	3,032	1,686	1,314	372
	6	Daurala ...	46,220	24,674	21,546	35,457	18,960	16,497	10,295	5,459	4,836	468	255	213
	7	Jani ...	77,145	40,731	36,414	60,809	32,124	28,685	15,546	8,209	7,337	790	398	392
	8	Mau Khas ...	27,275	14,488	12,787	20,562	10,933	9,629	6,429	3,395	3,034	284	160	124
	9	Gháziabad ...	47,927	25,722	22,205	34,388	18,498	15,890	12,802	6,810	5,992	737	414	323
	10	Pilkhua ...	35,582	18,938	16,644	23,677	12,711	10,966	11,847	6,187	5,660	58	40	18
	11	Dhaulana ...	45,659	23,743	21,916	33,482	17,582	15,900	11,713	5,901	5,812	464	260	204
	12	Begamabad ...	49,067	26,016	23,051	41,117	21,769	19,348	7,694	4,121	3,573	256	126	130
	13	Muraduagar ...	53,067	28,499	24,568	42,244	22,684	19,560	10,186	5,462	4,724	637	353	284
	14	Loni ...	26,038	14,037	12,001	22,901	12,444	10,457	3,120	1,588	1,532	17	5	12
	15	Shahdara ...	19,600	10,698	8,902	14,834	8,182	6,652	4,429	2,329	2,100	337	187	150
	16	Baghpat ...	60,307	32,520	27,787	49,321	26,714	22,607	9,035	4,769	4,266	1,951	1,037	914
	17	Khekra ...	25,896	13,673	12,223	21,972	11,585	10,387	3,028	1,612	1,416	896	476	420
Meerut	18	Baraut ...	97,850	51,873	45,977	79,762	42 382	37,380	14,255	7,405	6,850	3,833	2,086	1,747
	19	Chaprauli ...	55,787	31,095	24,692	42,790	23,815	18,975	10,937	6,144	4,793	2,060	1,136	924

20	Baleni ...	33,599	17,767	15,832	28,468	15,075	13,393	4,525	2,350	2,175	606	342	264
21	Garhmuktesar,	36,300	19,613	16,687	25,154	13,628	11,526	10,532	5,672	4,860	614	313	301
22	Baksar ...	32,372	17,020	15,352	24,231	12,730	11,501	7,902	4,170	3,732	239	120	119
23	Bahadurgarh ...	22,326	11,671	10,655	17,387	9,186	8,201	4,728	2,373	2,355	211	112	99
24	Hapur ...	92,364	48,050	44,314	68,851	36,228	32,623	22,296	11,184	11,112	1,217	638	579
25	Bahsuma ...	19,195	10,288	8,907	16,609	8,907	7,702	2,527	1,345	1,182	59	36	23
26	Mawana ...	82,893	43,428	39,465	61,815	32,383	29,432	19,903	10,425	9,478	1,175	620	555
27	Parichhatgarh	59,086	31,309	27,777	44,473	23,610	20,863	13,782	7,230	6,552	831	469	362
28	Bahukpur ...	36,401	19,347	17,054	29,703	15,782	13,921	6,166	3,281	2,885	532	284	248
29	Kharkhauda ...	46,541	24,230	22,311	31,035	16,290	14,745	14,918	7,642	7,276	588	298	290
30	Khanpur ...	6,685	3,651	3,034	6,122	3,337	2,785	558	309	249	5	5	...
31	Kithor ...	41,358	21,621	19,737	26,984	14,414	12,570	14,084	7,053	7,031	290	154	136
32	Laliana ...	22,789	12,049	10,740	18,056	9,585	8,471	4,680	2,434	2,246	53	30	23
33	Sardhana ...	77,593	40,998	36,595	50,587	26,988	23,599	22,565	11,633	10,932	4,441	2,377	2,064
34	Binauli ...	38,427	20,499	17,928	31,698	16,895	14,803	4,937	2,607	2,330	1,792	997	795
35	Daha ...	42,183	22,646	19,537	32,122	17,209	14,913	7,385	3,973	3,412	2,676	1,464	1,212
	Total ...	1,540,175	820,563	719,612	1,145,728	612,525	533,203	359,895	188,688	171,207	34,552	19,350	15,202

TABLE III.—*Vital Statistics.*

Year.	Births.				Deaths.			
	Total.	Males.	Females.	Rate per 1,000.	Total.	Males.	Females.	Rate per 1,000.
1	2	3	4	5	6	7	8	9
1891	47,860	25,904	21,956	34·40	39,878	21,189	18,689	28·66
1892	48,208	26,108	22,100	34·65	51,291	27,676	23,615	36·86
1893	58,157	30,950	27,207	41·79	33,747	17,981	15,766	24·25
1894	63,724	33,776	29,948	45·79	49,644	26,353	23,291	35·68
1895	66,152	34,834	31,318	47·54	41,945	22,309	19,636	30·14
1896	59,022	30,992	28,030	42·42	45,583	24,631	20,952	32·76
1897	58,142	30,772	27,370	41·78	39,648	20,703	18,945	28·49
1898	62,108	32,658	29,450	44·63	42,143	21,975	20,168	30·29
1899	73,765	38,674	35,091	53·01	42,984	22,298	20,686	30·89
1900	61,582	32,485	29,097	44·26	48,470	25,148	23,322	*34·83
1901	63,988	33,707	30,281	41·54	47,376	24,253	23,123	30·76
1902	69,215	36,253	32,962	44·94	66,326	33,942	32,384	43·06
1903								
1904								
1905								
1906								
1907								
1908								
1909								
1910								
1911								
1912								
1913								
1914								

*The rates up to this year are calculated from the returns of the 1891 census.

TABLE IV.—*Deaths according to cause.*

Year.	Total deaths from—					
	All causes.	Plague.	Cholera.	Small-pox.	Fever.	Bowel complaints.
1	2	3	4	5	6	7
1891	39,878	...	924	2	37,949	315
1892	51,291	...	3,553	3	46,603	323
1893	33,747	...	61	5	32,558	234
1894	49,644	...	13	22	47,777	317
1895	41,945	...	25	5	39,906	235
1896	45,583	...	338	255	43,483	120
1897	39,648	...	2	101	38,271	126
1898	42,143	...	5	3	40,763	174
1899	42,984	...	217	2	40,818	209
1900	48,470	...	823	21	45,543	233
1901	47,376	...	75	17	45,695	145
1902	66,326	342	406	98	62,148	464
1903						
1904						
1905						
1906						
1907						
1908						
1909						
1910						
1911						
1912						
1913						
1914						

Table V.—*Statistics of Cultivation and Irrigation, 1309 Fasli.*

Pargana and tahsíl.	Total area.	Waste.	Culturable.	Cultivated.								Double-cropped.
				Irrigated.					Dry.	Total.		
				Total.	Canal.	Wells.	Tanks.	Other sources.				
1	2	3	4	5	6	7	8	9	10	11		12
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.		Acres.
Loni ...	100,351	9,922	35,471	15,456	7,774	7,352	20	310	39,502	54,958		8,981
Jalalabad ...	128,261	16,401	17,781	57,381	42,989	13,612	481	299	36,698	94,079		27,556
Dasna ...	86,843	12,147	11,521	42,316	27,383	14,480	440	13	20,859	63,175		24,317
Total, tahsíl Ghaziabad,	315,455	38,470	64,773	115,153	78,146	35,444	941	622	97,059	212,212		60,854
Hastinapur ...	152,523	21,101	46,358	31,559	25,078	6,210	266	5	53,505	85,064		10,089
Kithor ...	125,229	16,299	21,828	33,051	26,097	6,641	294	19	54,051	87,102		12,057
Total, tahsíl Mawana,	277,752	37,400	68,186	64,610	51,175	12,851	560	24	107,556	172,166		22,146
Sardhana ...	87,466	9,148	9,935	38,657	27,458	10,514	640	45	29,726	68,383		12,488
Barnawa ...	72,912	6,666	10,190	26,140	4,367	21,415	212	146	29,916	56,056		9,464
Total, tahsíl Sardhana,	160,378	15,814	20,125	64,797	31,825	31,929	852	191	59,642	124,439		21,952
Baghpat ...	123,241	10,938	12,949	51,828	32,307	19,078	171	272	47,526	99,354		20,952
Baraut ...	48,725	3,886	2,645	33,628	27,669	5,799	114	46	8,566	42,194		12,399
Kutana ...	48,850	6,571	6,951	22,606	16,126	6,329	104	47	12,722	35,328		7,805
Chaprauli ...	38,353	3,643	4,196	21,647	16,985	4,480	140	42	8,867	30,514		7,590
Total, tahsíl Baghpat,	259,169	25,038	26,741	129,709	93,087	35,686	529	407	77,681	207,390		48,746

TABLE V.—*Statistics of Cultivation and Irrigation*, 1309 *Fasli*—(concluded).

Pargana and tahsíl.	Total area.	Waste.	Culturable.	Cultivated. Irrigated. Total.	Canal.	Wells.	Tanks.	Other sources.	Dry.	Total.	Double-cropped.
1	2	3	4	5	6	7	8	9	10	11	12
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Hapur ...	103,303	7,525	9,923	37,585	7,620	29,020	277	668	48,270	85,855	17,756
Sarawa ...	49,217	4,454	5,005	15,778	864	14,556	126	232	23,980	39,758	5,384
Garhmuktesar ...	69,593	9,800	10,413	20,715	17,131	3,240	342	2	28,665	49,380	9,269
Puth ...	43,171	8,041	7,378	10,756	8,385	2,118	253	...	16,996	27,752	5,247
Total, tahsíl Hapur,	265,284	29,820	32,719	84,834	34,000	48,934	998	902	117,911	202,745	37,656
Meerut ...	232,842	30,707	27,511	92,480	52,923	37,922	755	880	82,144	174,624	31,143
Total, tahsíl Meerut	232,842	30,707	27,511	92,480	52,923	37,922	755	880	82,144	174,624	31,143
District Total ...	1,510,880	177,249	240,055	551,583	341,156	202,766	4,635	3,026	541,993	1,093,576	222,497

TABLE VI.—*Area in acres under the principal crops, tahsíl Meerut.*

Year.	Rabi.						Kharíf.				
	Total.	Wheat.	Wheat and gram.	Wheat and barley.	Barley.	Gram and peas.	Total.	Maize.	Juar.	Cotton.	Sugarcane.
Fasli.											
1309*	96,987	59,281	11,969	485	3,774	16,948	106,978	17,149	27,648	8,831	22,136
1310	102,377	57,154	9,625	513	2,723	28,576	109,881	15,705	29,555	9,830	24,287
1311											
1312											
1313											
1314											
1315											
1316											
1317											
1318											
1319											
1320											
1321											

* No earlier returns available on account of settlement operations.

TABLE VI—(continued)—*Area in acres under the principal crops, tahsíl Gházíabad.*

Year.	Rabi.						Kharíf.				
	Total.	Wheat.	Wheat and gram.	Wheat and barley.	Barley.	Gram and peas.	Total.	Maize.	Juar.	Cotton.	Sugar-cane.
1	2	3	4	5	6	7	8	9	10	11	12
Fasli.											
1307 *	112,761	65,605	6,097	3,794	20,558	8,832	128,156	28,548	39,952	14,784	16,636
1308 †	...	...	...	...	...	...	137,466	32,304	43,218	15,902	13,961
1309	136,752	62,484	21,187	3,695	15,266	20,997	134,678	35,641	37,855	18,562	15,991
1310	145,334	57,309	31,481	3,150	13,378	26,766	135,762	31,818	39,768	22,170	17,788
1311											
1312											
1313											
1314											
1315											
1316											
1317											
1318											
1319											
1320											
1321											

* No earlier returns available owing to settlement. | † No returns available on account of census operations.

TABLE VI—(continued).—*Area in acres under the principal crops, tahsíl Hapur.*

Year.	Rabi.						Kharíf.				
	Total.	Wheat.	Wheat and gram.	Wheat and barley.	Barley.	Gram and peas.	Total.	Maize.	Juar.	Cotton.	Sugar-cane.
Fasli.											
1307*	102,776	55,930	4,741	5,381	18,919	8,084	119,363	21,507	29,535	12,093	12,862
1308†	...	...	...	...	...	...	124,611	22,595	33,076	12,144	10,507
1309	114,625	52,008	15,524	4,472	15,293	17,283	125,658	24,226	29,214	14,237	14,157
1310	119,992	56,823	12,919	4,690	12,597	23,215	124,734	23,376	31,151	15,696	14,187
1311											
1312											
1313											
1314											
1315											
1316											
1317											
1318											
1319											
1320											
1321											

* No earlier returns available owing to settlement. | † No returns available on account of census operations.

TABLE VI—(continued).—*Area in acres under the principal crops, tahsíl Baghpat.*

Year.	Rabi.						Kharíf.				
	Total.	Wheat.	Wheat and gram.	Wheat and barley.	Barley.	Gram and peas.	Total.	Maize.	Juar.	Cotton.	Sugarcane.
Fasli.											
1309*	123,318	64,744	25,098	651	5,326	16,976	131,342	25,670	41,905	12,921	29,325
1310	135,475	58,203	33,571	1,019	4,020	29,923	130,927	21,340	42,504	14,735	32,973
1311											
1312											
1313											
1314											
1315											
1316											
1317											
1318											
1319											
1320											
1321											

*No earlier returns available owing to settlement operations.

TABLE VI—(continued).—*Area in acres under the principal crops, tahsíl Sardhana.*

Year.	Rabi. Total.	Rabi. Wheat	Rabi. Wheat and gram.	Rabi. Wheat and barley.	Rabi. Barley.	Rabi. Gram and peas.	Kharíf. Total.	Kharíf. Maize.	Kharíf. Juar.	Kharíf. Cotton.	Kharíf. Sugar-cane.
Fasli.											
1307*	55,077	41,973	1,760	116	4,666	4,688	76,342	12,704	26,914	6,554	14,905
1308†	...	...	...	...	...	...	75,085	13,520	22,182	7,287	11,239
1309	68,176	37,441	14,099	429	3,095	10,531	76,791	14,504	27,024	7,078	13,215
1310	73,418	34,457	17,382	78	1,984	17,175	76,830	12,713	27,983	7,625	14,782
1311											
1312											
1313											
1314											
1315											
1316											
1317											
1318											
1319											
1320											
1321											

* No earlier returns available owing to settlement. | † No returns available on account of census operations.

TABLE VI—(concluded).—*Area in acres under the principal crops, tahsíl Mawana.*

Year.	Rabi.						Kharíf.				
	Total.	Wheat.	Wheat and gram.	Wheat and barley.	Barley.	Gram and peas.	Total.	Maize.	Juar.	Cotton.	Sugar-cane.
Fasli.											
1307*	83,705	51,311	1,532	9,858	8,170	8,877	101,613	10,013	20,411	5,003	23,227
1308†	...	...	...	...	...	...	101,424	11,254	20,436	4,970	19,728
1309	88,679	51,518	2,998	11,011	7,399	13,735	104,768	12,338	21,345	5,186	20,587
1310	93,618	52,723	1,852	9,441	5,764	21,883	105,050	10,958	20,982	5,829	23,552
1311											
1312											
1313											
1314											
1315											
1316											
1317											
1318											
1319											
1320											
1321											

* No earlier returns available owing to settlement. | † No returns available on account of census operations.

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TABLE VII.—*Criminal Justice.*

Year.	Number of persons convicted or bound over in respect of—												Cases under—	
	Offences against public tranquillity (Chapter VIII).	Offences affecting life.	Grievous hurt.	Rape.	Cattle theft.	Criminal force and assault.	Theft.	Robbery and dacoity.	Receiving stolen property.	Criminal trespass.	Bad livelihood.	Keeping the peace.	Opium Act.	Excise Act.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1896 ...	214	49	57	7	48	32	364	27	208	349	...	117	4	10
1897 ...	196	52	41	4	63	52	350	34	179	369	88	66	3	27
1898 ...	153	54	22	...	47	37	319	88	154	287	78	74	5	8
1899 ...	196	32	30	3	43	76	374	45	129	200	60	35	3	9
1900 ...	190	45	38	1	68	41	380	113	149	402	126	71	3	10
1901 ...	161	40	45	2	33	30	272	57	125	338	100	86	5	13
1902 ...	186	38	60	5	37	26	227	69	116	241	127	66	2	11
1903 ...														
1904 ...														
1905 ...														
1906 ...														
1907 ...														
1908 ...														
1909 ...														
1910 ...														
1911 ...														
1912 ...														
1913 ...														
1914 ...														

TABLE VIII.—*Cognizable Crime.*

Year.	Number of cases investigated by police—			Number of persons—		
	Suo motu.	By orders of Magistrate.	Sent up for trial.	Tried.	Acquitted or discharged.	Convicted.
1	2	3	4	5	6	7
1898	2,484	...	1,810	2,428	404	2,014
1899	2,437	3	1,578	2,322	451	1,825
1900	2,862	...	1,889	2,706	475	2,212
1901	2,472	...	1,615	2,380	487	1,845
1902	2,214	1	1,456	2,130	476	1,654
1903						
1904						
1905						
1906						
1907						
1908						
1909						
1910						
1911						
1912						

TABLE IX.—*Revenue demand at successive settlements, district Meerut.*

Pargana.	Year of settlement.			
	1835.	1866.	1872.	1901.
	Rs.	Rs.	Rs.	Rs.
Meerut	3,34,557	4,08,905	4,13,536	5,62,836
Hapur	1,20,579	1,33,900	1,34,320	1,83,021
Sarawa	52,552	60,850	60,905	84,455
Garhmuktesar	48,096	58,880	58,937	89,950
Puth	40,196	41,225	40,052	54,845
Dasna	97,163	1,23,050	1,12,335	1,63,460
Jalalabad	1,43,580	1,75,055	1,76,718	2,54,370
Loni	76,878	95,261	95,373	1,00,387
Baghpat	1,48,220	2,10,035	2,10,035	2,88,705
Baraut	1,07,478	1,15,400	1,15,400	1,60,935
Kutana	87,873	99,825	99,425	1,27,790
Chaprauli	82,801	89,725	89,800	1,09,088
Sardhana	1,57,714	1,71,180	1,71,403	2,11,945
Barnawa	1,20,795	1,28,950	1,29,035	1,72,615
Kithor	92,237	1,19,380	1,18,545	1,64,765
Hastinapur	1,14,462	1,48,780	1,47,680	1,96,561
Total ...	18,25,181	21,80,401	21,73,499	29,25,728

TABLE X.—*Present demand for revenue and cesses for the year 1309 fasli.*

Pargana and tahsíl.	Where included in *Ain-i-Akbari.*	Revenue.	Cesses.	Total.	* Incidence per acre.	
					Cultivated.	Total.
1	2	3	4	5	6	7
		Rs.	Rs.	Rs.		
Meerut	Mirath...	5,16,327	86,065	6,02,392	3·06	2·59
Tahsíl Meerut ...	...	5,16,327	86,065	6,02,392	3·06	2·59
Dasna	Dasna	1,55,458	27,245	1,82,703	2·81	2·10
Jalalabad	Jalalabad	2,29,841	36,809	2,66,650	3·34	2·08
Loni	Loni	99,992	15,982	1,15,974	1·85	1·16
Tahsíl Gháziabad ...	...	4,85,291	80,036	5,65,327	2·72	1·79
Baghpat	Baghpat	2,67,327	43,634	3,10,961	3·03	2·52
Baraut	{ Jalalpur ... ... { Baraut...	1,48,750	23,800	1,72,550	4·08	3·54
Chaprauli	{ Chaprauli ... ... { Tanda Phugana	1,08,615	17,378	1,25,993	4·09	3·28
Kutana	Kutana	1,25,926	20,148	1,46,074	3·79	2·99
Tahsíl Baghpat ...	...	6,50,618	1,04,960	7,55,578	3·52	2·91
Hapur	Hapur...	1,71,415	30,826	2,02,241	2·31	1·95
Sarawa	Sarawa	79,798	12,767	92,565	2·29	1·88
Garhmuktesar	Garhmuktesar	84,715	13,554	98,269	1·96	1·41
Puth	Puth	57,051	9,096	66,147	2·38	1·32
Tahsíl Hapur ...	...	3,92,979	66,243	4,59,222	2·23	1·73
Sardhana	Sardhana	2,07,975	33,295	2,41,270	3·45	2·76
Barnawa	Barnawa	1,61,900	25,904	1,87,804	3·20	2·58
Tahsíl Sardhana ...	...	3,69,875	59,199	4,29,074	3·33	2·67
Hastinapur...	Hastinapnr	1,90,746	30,520	2,21,266	2·59	1·45
Kithor	Sarawa	1,64,305	26,452	1,90,757	2·18	1·52
Tahsíl Mawana ...	...	3,55,051	56,972	4,12,023	2·32	1·48
GRAND TOTAL ...	...	27,70,141	4,53,475	32,23,616	2·87	2·13

Table XI.—*Excise.*

Year.	Receipts from foreign liquors.	Country spirit.		Receipts from Tári and Sendhi.	Drugs.			Opium.	
		Receipts.	Consumption in gallons		Total receipts.	Consumption in maunds of—		Total receipts.	Consumption.
						Gánja.	Charas.		
1	2	3	4	5	6	7	8	9	10
	Rs.	Rs.		Rs.	Rs.	Mds. s.	Mds. s.	Rs.	Mds. s.
1890-91 ...	2,306	1,42,228	52,625	1,250	11,650	Not available.		41,900	91 25
1891-92 ...	1,696	1,32,617	43,130	871	18,550	Ditto.		40,461	87 18
1892-93 ...	2,680	1,22,608	49,667	1,580	17,200	...	58 32	42,309	88 18
1893-94 ...	1,576	1,61,298	67,185	1,350	22,450	...	60 14	45,816	81 35
1894-95 ...	2,012	1,92,204	66,073	1,125	19,134	...	73 39	45,681	82 37
1895-96 ...	2,316	1,91,596	49,281	1,575	20,666	...	72 20	40,880	78 13
1896-97 ...	2,448	1,61,274	40,186	1,275	14,000	...	64 25	37,194	71 6
1897-98 ...	3,134	1,85,949	46,262	910	15,801	...	68 24	36,390	74 9
1898-99 ...	2,252	1,96,347	46,810	950	16,500	...	72 2	39,581	79 22
1899-1900 ...	2,588	2,14,440	41,485	1,500	20,000	...	48 8	39,804	73 29
1900-1901 ...	3,020	1,66,205	43,838	1,100	29,194	...	58 28	46,610	69 39
1901-1902 ...	2,844	1,63,433	42,132	1,000	28,452	...	54 3	46,898	73 24
1902-1903 ...	2,934	2,00,005	54,249	1,000	27,895	...	50 24	49,835	80 19
1903-1904 ...									
1904-1905 ...									
1905-1906 ...									
1906-1907 ...									
1907-1908 ...									
1908-1909 ...									
1909-10 ...									
1910-11 ...									
1911-12 ...									
1912-13 ...									

TABLE XI.—*Excise*—(concluded).

Year.	Total receipts.	Total charges.	Incidence of receipts per 10,000 of population from—			Number of shops for sale of—		
			Liquor including *Tári.*	Drugs.	Opium.	Country spirit.	Drugs.	Opium.
1	11	12	13	14	15	16	17	18
	Rs.	Rs.	Rs.	Rs.	Rs.			
1890-91 ...	2,08,171	4,238	1,048	130	318	188	55	51
1891-92 ...	1,96,374	5,283	972	133	306	176	55	40
1892-93 ...	1,86,422	4,701	911	123	304	174	56	39
1893-94 ...	2,32,512	3,982	1,159	161	321	182	56	39
1894-95 ...	2,60,192	2,487	1,274	137	326	182	56	39
1895-96 ...	2,57,044	1,638	1,242	149	290	180	56	39
1896-97 ...	2,16,295	1,783	973	106	267	182	56	39
1897-98 ...	2,42,404	3,713	983	114	263	169	56	39
1898-99 ...	2,55,672	2,212	1,097	164	287	165	56	39
1899-1900 ...	2,79,395	1,969	1,268	175	293	163	56	39
1900-1901 ...	2,46,167	1,605	1,106	190	302	178	62	41
1901-1902 ...	2,42,666	1,498	1,086	185	304	177	62	47
1902-1903 ...	2,81,797	2,342	1,324	181	324	178	62	47
1903-1904 ...								
1904-1905 ...								
1905-1906 ...								
1906-1907 ...								
1907-1908 ...								
1908-1909 ...								
1909-10 ...								
1910-11 ...								
1911-12 ...								
1912-13 ...								

TABLE XII.—*Stamps.*

Year.	Receipts from—			Total charges.
	Non-judicial.	Court-fee including copies.	All sources.	
1	2	3	4	5
	Rs.	Rs.	Rs.	Rs.
1890-91 ...	60,990	2,35,229	2,97,663	5,313
1891-92 ...	62,652	2,45,954	3,11,842	5,689
1892-93 ...	65,499	2,62,708	3,29,877	5,873
1893-94 ...	63,210	2,66,801	3,30,616	7,189
1894-95 ...	61,716	2,57,668	3,20,164	5,945
1895-96 ...	65,198	2,54,315	3,23,496	6,367
1896-97 ...	62,041	2,38,926	3,07,877	6,251
1897-98 ...	61,004	2,48,569	3,12,153	5,684
1898-99 ...	57,769	2,58,940	3,19,085	5,180
1899-1900 ...	59,316	2,66,101	3,28,392	5,078
1900-1901 ...	79,925	3,17,333	3,99,714	5,581*
1901-1902 ...	71,943	2,96,288	3,70,456	7,949
1902-1903 ...				
1903-1904 ...				
1904-1905 ...				
1905-1906 ...				
1906-1907 ...				
1907-1908 ...				
1908-1909 ...				
1909-10 ...				
1910-11 ...				
1911-12 ...				
1912-13 ...				

* Discount only.